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# Training for Ontario's future

*Report of the  
Task Force on  
Industrial Training*



Ontario

MINISTRY OF COLLEGES AND UNIVERSITIES  
MANPOWER TRAINING BRANCH

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# **Report of the Task Force on Industrial Training**



Ontario

Ministry of Colleges and Universities  
Manpower Training Branch

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---

## Acknowledgements

The Task Force received assistance from many individuals and organizations both in its deliberations and in the preparation of this Report. We acknowledge our debt to all of them, and regret that time and space do not permit us to mention each by name.

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Mr. H. W. Jackson, Director of the Applied Arts and Technology Branch of the Ministry of Colleges and Universities, provided one permanent member, and placed the time of some of his staff at the disposal of the Task Force.

Dr. L. A. McLeod, Director of the Research Branch of the Ministry of Colleges and Universities, permitted one of his staff to continue as a member of the Task Force after his transfer from the Ministry of Labour.

When another permanent member of the Task Force changed not only ministries but also governments, Mrs. Helen Buckley, Co-ordinator Manpower Research and Development Section of Statistics Canada, permitted him to continue as a member of the Task Force.

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We are much indebted to Alison Adair, who edited the manuscript of the Report.

Finally, as Chairman of the Task Force, I would like to pay tribute to the extensive contributions of each of its members. The depth of these contributions is only partially indicated by the fact that the Task Force held a total of fifty-one full day meetings. Our Report, in the main, is the product of intensive analysis, discussions and shared conclusions resulting from the differing perceptions and experiences of the members. Individual members also contributed by preparing drafts of the chapters, which were then reviewed and amended in detail by the Task Force as a whole.

W. R. Dymond,  
Chairman,  
Task Force on Industrial Training



## Summary of Recommendations

*The following recommendations are contained in chapters 7 through 12*

### Chapter 7

#### **RECOMMENDATION 1**

That a single branch to be known as the Employer-centred Training Branch in the Ministry of Colleges and Universities be constituted, to be responsible for the development and co-ordination of all employer-centred training programs, including apprenticeship, in the province. That the branch incorporate all of the present headquarters and field staff of the Industrial Training Branch and those elements of the Applied Arts and Technology Branch, related to the development and monitoring of in-industry training programs, which are primarily serviced from the Colleges of Applied Arts and Technology.

#### **RECOMMENDATION 2**

That an Employer-centred Training Division be established in each College of Applied Arts and Technology, and that it be responsible to the Employer-centred Training Branch with respect to financial regulations, administrative procedures and apprenticeship standards and regulations, and to the President and Board of Governors of the Colleges of Applied Arts and Technology for training methods, curriculum development and the promotion and general supervision of employer training projects.

#### **RECOMMENDATION 3**

That the staffs of the Employer-centred Training Divisions of CAATs, who are responsible for the development and supervision of apprenticeship, consist of persons fully responsible for apprenticeship programs and their regulation and that they also work in close consultation and communication with the Apprenticeship Division of the Employer-centred Training Branch of the Ministry and with the Local Apprenticeship Committees of each area.

#### **RECOMMENDATION 4**

That the employer assume primary responsibility for the final selection of trainees, training methods and curriculum, project level administration of budgets, and adherence to regulations in government-financed training projects.

#### **RECOMMENDATION 5**

That CAATs, supported by the Ministry of Colleges and Universities, give serious consideration to allocating incremental money resources for manpower and industrial training to employer-centred training programs.

#### **RECOMMENDATION 6**

That the Boards of Governors of the Colleges of Applied Arts and Technology be reconstituted to represent the following categories of members:

- (i) employer representatives of the principal sectors of employment;
- (ii) representatives of the principal unions operating in the area, including at least one from the apprenticeship trades;
- (iii) members who represent the municipalities in which the CAAT operates.

That Boards have explicit responsibility to determine the distribution of resources between the major training programs and to provide general directions on programs emphasis. That Boards be appointed after advice from the principal economic and public organizations in the region such as Chambers of Commerce. Other employer organizations, local labour councils, municipal councils, and other organizations representative of various sectors of the public.

#### **RECOMMENDATION 7**

That the responsibilities of the Ontario Council of Regents for Colleges of Applied Arts and Technology, as they apply to the institution-centred programs of the CAATs, be left undisturbed, but that the implementation of these responsibilities be not applicable to employer-centred training programs.

#### **RECOMMENDATION 8**

That the Minister of Colleges and Universities, because of his responsibility for both employer-centred and institutional training, directly appoint the Boards of Governors of the Colleges of Applied Arts and Technology within the framework outlined for the reconstitution of the Board of Governors.

**RECOMMENDATION 9**

That legislation be enacted which, among other things, would deal explicitly with training-in-industry (employer-centred training) and related matters in terms of objectives, standards and financial support. Such legislation would require the approval of the Minister of Colleges and Universities before employers could accept financial support for the training of employees or other persons from an agency or department of government, other than an agency or department responsible to the Government of Ontario.

**RECOMMENDATION 10**

a. That each year a comprehensive agreement be signed by the Minister of Colleges and Universities and the Minister of Manpower and Immigration to cover the financial resources, the training places or man-years of training, and the matters covered under (b) and (c) below for each program area under the AOT Act or other manpower training programs established by the federal government.

b. That there be agreement between the relevant departments of each government on program(s) objectives in specific terms, on financing of employer-centred programs, and on the technical support services to be provided to employers within the legislative frameworks established by each government.

c. That the administrative and implementation roles of each government's designated agencies be defined and agreed upon, particularly in the area of employer-centred training.

d. That provision be made for changing these agreements, on an adequate notice basis, by either party if such is required in light of changing needs and conditions.

**RECOMMENDATION 11**

a. That a senior committee be established by the Ministry of Colleges and Universities to co-ordinate and develop a provincial policy each year on the purchase by the federal government of manpower training from institutions (public or private) and from employers in the province. That this authority (or committee) be responsible for the development of the agreement(s) mentioned in Recommendation 10.

b. That the Ministry determine an appropriate allocation of resources for each main program area to CAATs as a group (including the Employer-centred Training Divisions), on the basis of an appraisal of needs submitted by them in advance of the negotiations with the Department of Manpower and Immigration.

c. That the CAATs be responsible for determining in detail the allocation of resources, allocated to them by the Ministry, within the major program areas and among occupational course groupings, in sub-programs in the employer-centred training and institutional training areas. That this be done in consultation and agreement with Canada Manpower Centres or other organizational units designated by the Department of Manpower and Immigration at the regional level.

*Chapter 8***RECOMMENDATION 12**

That the Government of Ontario seek to negotiate a revised basis for the financing of employer-centred training within the Government of Canada, using the criteria outlined herein; the Government of Ontario to consider whether it wishes to make its approval of employer-centred training programs (as proposed in Recommendation 9) contingent on the acceptance of these, or appropriately modified, criteria.

*Chapter 9***RECOMMENDATION 13**

That the concept of non-regulated trades under the Apprenticeship and Tradesmen's Qualification Act be dropped and that training in these occupations become an integral part of the training programs developed by employers, with technical assistance from government as appropriate and required. That the agency responsible for delivering technical assistance, when appropriate, to these employer-initiated, training programs be the Employer-centred Training Branch.

**RECOMMENDATION 14**

That regulated trades with small numbers of active apprentices be dropped from the Apprenticeship Program and that industry assume the responsibility for training in these trades, again with appropriate technical assistance provided by the employer-centred Training Branch.

**RECOMMENDATION 15**

That the barber and hairdressing trades be reviewed by the Employer-centred Training Branch to determine whether, logically, they belong under the Apprenticeship Program or rather should form part of an institutional classroom-based program.



## RECOMMENDATION 16

That a new provincial Advisory Committee be established for each trade, or group of designated trades, as appropriate.

### a. Composition

That equal representation be given to employers and employees or their representatives, and that the period of membership on the Committee not exceed four years. In addition, that there be at least two representatives of the general public on the Committee and that one of them act as chairman. That all members' terms be capable of renewal at the option of the Minister. That the Minister appoint the membership, subject to consultation with the principal trade union and employers' associations in the trade.

### b. Expenses

That each member of a provincial Advisory Committee be reimbursed for expenses, and be paid a per diem allowance for attendance at meetings.

### c. Terms of Reference

- (1) to advise the Minister on all aspects of training apprentices in the trade including curriculum content, supervision and administration of training activities. To advise on selection, promotion, content of in-class and on-the-job training, subdivision or specialization of the trade for training purposes, and other related matters on the initiative of the Committee.
- (2) To review the results of periodic job analyses in each trade to provide advice on the skill and knowledge content of the trade and, in particular, to recommend whether or not the trade should be subdivided for training purposes.
- (3) To review periodically an evaluation of training in each trade in terms of the effectiveness and efficiency of training and of improvements shown to be desirable by the results of the review.
- (4) To consider reports from Local Advisory Committees on the implementation of apprenticeship training in each area to determine whether there are improvements which would be appropriate for general application.
- (5) To consider whether the number in training in the trade is adequate to meet future requirements, on the basis of information received from the labour market and Vocational Information Service of the Ministry and other sources, with a view to making recommendations to employers, unions and the Apprenticeship Division on such matters as

entrance standards, ratios of apprentices, and other factors affecting the level of apprenticeship enrolment. Reports on the labour market outlook in the trade for the province to be reviewed and the findings and any resulting recommendations to be published on a periodic basis.

## RECOMMENDATION 17

That Local Apprenticeship Committees be disbanded and in their place a system of Regional Apprenticeship Committees, on a community college area basis, be established:

- (i) that equal representation be given to employers and employees or their representatives; that there be at least two representatives from each side; that the term of membership not exceed four years; in addition, that there be a minimum of two apprentices on the Committee plus a representative from the local community college;
- (ii) that the regional Apprenticeship Committees report to the Provincial Advisory Committees;
- (iii) that each member of a regional Apprenticeship Committee be reimbursed for expenses and be paid a per diem allowance for attendance at meetings;
- (iv) that the functions of the regional Apprenticeship Committees be restricted to providing information and advice on local conditions; unique characteristics or developments within the region; their effects on apprenticeship training in a trade; the necessary adjustments that should be made to maintain the viability and relevance of the apprenticeship training program;
- (v) that while the Regional Apprenticeship Committees should provide information and advice on the entry level requirements of entrants into apprenticeship, and the standards that should be met before a person is granted certification in a trade, the responsibility for screening applicants and reviewing the qualifications of workers who apply for certification should remain solely with the Apprenticeship Division of the Employer-centred Training Branch;
- (vi) that the practice of permitting apprentices to be indentured to advisory committees be allowed only when the characteristics of a trade in a particular area necessitate that an apprentice must move among employers to obtain adequate on-the-job training. That when a request for this type of arrangement is received, the Apprenticeship Division of the Employer-centred Training Branch initiate an independent study to determine whether there is a real training need for the arrangement. That when the practice is permitted, the Regional Apprenticeship Committee create a special sub-committee to be responsible for the Contract of Apprenticeship.

**RECOMMENDATION 18**

- a. That a temporary Advisory Committee be established of representative employers and employee organizations in the trade together with several members representing the public interest if the Minister, on the advice of the Employer-centred Training Branch, is satisfied that there are sufficient grounds to warrant that a review and study be made.
- b. That a report be prepared on the need for an apprenticeship program in terms of labour market requirements in the trade, and the appropriateness of apprenticeship training for the trade; the report to be based on an independent study.
- c. That the temporary Advisory Committee review the findings of the above study and make a recommendation to the Minister on whether or not the trade should be designated for the purpose of apprenticeship.

**RECOMMENDATION 19**

That a contractual arrangement be made between the Ministry of Colleges and Universities and the Ministry of Labour, whereby the Employment Standards Branch of the Ministry of Labour would enforce minimum legal working conditions for registered apprentices.

**RECOMMENDATION 20**

While it is recognized that there must be minimum predetermined amounts of on-the-job and classroom training, the Task Force recommends that the classroom training component of apprenticeship be permitted to vary with employment opportunities in the trade. Specifically, that an apprentice be placed in a community college program, which is related to his trade, when he becomes unemployed during periods of decline in production. That during such periods of in-school instruction, apprentices receive an income allowance equal to 80 per cent of their average weekly wages during their previous six months of employment.

**RECOMMENDATION 21**

That the general ratios set under the Apprenticeship and Tradesmen's Qualification Act be the legal ratios for each trade, that is, that neither higher nor lower ratios be permitted through special trade regulations.

**RECOMMENDATION 22**

That provision be made by each Provincial Advisory Committee to review the mix of on-the-job and classroom instruction for each trade in light of an up-to-date job analysis of the knowledge and skills required by a journeyman.

**RECOMMENDATION 23**

That in situations where significant elements of the trade cannot be acquired, either through on-the-job training or in a reasonable period of time, laboratory simulations of the work experience elements be provided as part of the in-school portion of the training program.

**RECOMMENDATION 24**

That the use of log books or other record-keeping systems be increased to ensure that an apprentice's exposure to the various elements of a trade are recorded and certified by employers, and that such records be a significant element of the process for determining an apprentice's eligibility for accreditation as a journeyman.

**RECOMMENDATION 25**

That each Provincial Advisory Committee undertake a detailed study of the degree of specialization that has evolved within each trade and, when appropriate, recommend the recognition of different levels of competence within a trade in order to reflect more realistically the realities of Ontario's labour market.

**RECOMMENDATION 26**

That persons who wish to move from one trade to another, and are prepared to register as apprentices in the second trade, be given credit for training and work experience acquired in their first trade towards the certification requirements in the second trade.

**RECOMMENDATION 27**

That each Provincial Advisory Committee review for its trade and educational background required by an apprentice, in light of the knowledge and skills he or she will have to acquire to complete the training program successfully.

**RECOMMENDATION 28**

That each Provincial Advisory Committee review for its trade the present system, or lack of system, for granting reductions in the period of training to persons with educational credits that surpass the minimum entry level requirements.

**RECOMMENDATION 29**

That to qualify for more than the standard reduction in the training period persons with greater than Grade 12 education be required to take a practical test administered by the Apprenticeship Division of the Employer-centred Training Branch.



### RECOMMENDATION 30

That the Apprenticeship Division of the Employer-centred Training Branch undertake to have aptitude tests developed, especially for the motor vehicle repair and the mechanical and electrical construction trades. That the results of such tests be used by counsellors in advising potential apprentices with respect to entering apprenticeship programs.

### RECOMMENDATION 31

That the Ministry of Colleges and Universities establish a committee to undertake an independent study of both the costs of on-the-job apprentice training borne by employers and the benefits that accrue to employers from employing apprentices. That this committee's findings be used as a basis for determining the nature of appropriate financial support for employers who provide such training for registered apprentices. That the federal Adult Occupational Training Act be amended to provide for the reimbursement of the net costs, to employers, of the provision of apprenticeship training.

#### Chapter 10

### RECOMMENDATION 32

That improved channels of communication be established between provincial and federal officials to provide overseas immigration officers with adequate information on trade standards in Ontario. Further, that potential immigrant tradesmen be given the opportunity to write trade tests in their own languages in their home countries, and that copies of credentials and resumé of work experience be sent to the Employer-centred Training Branch. On the basis of the examination results and review of credentials and work experience, that potential immigrant tradesmen be informed about their chances of qualifying for accreditation in their chosen trades before immigration visas are issued.

### RECOMMENDATION 33

a. That the general powers for the compulsory certification of trades be removed from the Apprenticeship and Tradesmen's Qualification Act, except for a section continuing its applicability in the motor vehicle repair trades, until such time as an adequate motor vehicle inspection system is developed.

b. That the voluntary certificate of qualification be applied to and promoted in those trades that were formerly subject to compulsory certification, with the exception of the motor vehicle repair trades now subject to compulsory certification. That voluntary Certificates of Qualification continue to be available to tradesmen whose experience in the trade is longer than the minimum period of an apprenticeship and who have passed Certificate of Qualification tests. That voluntary Certificates of Qualification be awarded to the graduates of Ontario apprenticeship programs who possess Certificates of Apprenticeship, and to red-seal certificate holders from other provinces. That there still be a significant requirement to determine and attest to the qualifications of immigrant tradesmen and workers who have acquired journeyman qualifications through on-the-job experience.

#### Chapter 11

### RECOMMENDATION 34

That the Employer-centred Training Branch promote the use of the modular approach to training by employers, unions, and CAATs, with whom various elements of the responsibility for training-in-industry lie.

### RECOMMENDATION 35

That the Training Methods Development Service provide for the supply of information on modular methods to the CAATs, employers, unions and other agencies which may wish to implement modular training systems.

### RECOMMENDATION 36

That the Ministry of Colleges and Universities provide a registration and information service to inventory and to make available information on the various training modules available within the province.

#### Chapter 12

### RECOMMENDATION 37

That there be established a Labour Market and Vocational Information Service responsible for the collection, analysis and distribution of information on the labour market and future manpower requirements, and the preparation of occupational outlook analyses and related information, to serve the needs of all those, including counsellors and students, who are in a position to influence the pattern of post-secondary training and education in the province of Ontario.

**RECOMMENDATION 38**

That a Training Methods Development Service be established within the Ministry of Colleges and Universities, together with a field staff to serve industry, located within the Employer-centred Training Division of the Colleges of Applied Arts and Technology.

**RECOMMENDATION 39**

That Training Advisory Committees should review new industrial training programs, and systematically review existing programs, to provide recommendations to CAATs on their quality and their relevance to labour market needs.

**RECOMMENDATION 40**

That techniques be developed for the use of performance objectives in curriculum planning as part of the work of the Training Methods Development Service of the Ministry of Colleges and Universities, and that they be implemented by the field staffs of the Employer-centred Training Division of the CAATs, and by those responsible for curriculum planning in the institutional industrial training programs of the CAATs.

**RECOMMENDATION 41**

That where uniformity is desirable, after a systematic review and analysis on an occupational or industrial basis, the Ministry of Colleges and Universities assume responsibility for the establishment and supervision of standards which would constitute guidelines to be followed in publicly supported training programs in the province.

**RECOMMENDATION 42**

That all training allowance payments be above the rates of unemployment insurance and welfare benefits, and that this principle be adopted by the Department of Manpower and Immigration and the Government of Ontario. In particular, that the Government of Ontario review the allowance structure to determine the desirability of varying allowances on a regional basis within the province to better reflect variations in prevailing wage rates and living costs across Ontario.

**RECOMMENDATION 43**

That Training Advisory Committees review the admission standards and practices of each industrial training program to ensure that it is relevant and functional in terms of the objectives of the programs, and to ensure that such standards do not unnecessarily restrict entrance. That emphasis be given, within the limitations of techniques, to the greater use of predictive tests, as distinct from educational prerequisites, in the selection of students for industrial training programs.

**RECOMMENDATION 44**

That an early study be undertaken on the questions of flexibility and the utilization of resources in the industrial training system of the province, as a basis for recommendations on the ways and means by which greater flexibility can be achieved within the context of the efficient utilization of training resources. That the study be guided by a policy committee representative of the CAATs, administrative and research personnel from the Ministry of Colleges and Universities, employers and unions.

**RECOMMENDATION 45**

That the Planning and Research Branch of the Ministry of Colleges and Universities assume the following responsibilities:

- (i) to undertake long-range resource and program planning, involving the examination of alternative objectives and ways of implementing them;
- (ii) to identify the need for new initiatives to meet changing economic and social conditions, and to develop new or modify existing programs to achieve more effectively the Ministry's objectives;
- (iii) to develop criteria and methodologies to ensure the evaluation of training and educational programs on a comparable basis by the Development and Evaluation Units in the CAATs and to co-ordinate their activities;
- (iv) to provide information to enable decision-makers to determine the desirable allocation of resources between programs and alternative levels of programs;
- (v) to evaluate on a continuing basis the effectiveness of programs at the level of the Ministry.

**RECOMMENDATION 46**

That Program Development and Evaluation Units be established within each College of Applied Arts and Technology to be responsible to the President for direction on implementing the CAAT's activities,



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and responsible to the Planning and Research Branch of the Ministry for ensuring adequate technical standards and the necessary uniformity of methods in those areas of evaluation where comparisons are desirable and the aggregation of results necessary. That the focus of the work of the Planning and Evaluation Units be the evaluation of educational and training programs, the recommendation of initiatives for new programs and the provision of an adequate informational and analytical base to the Boards of Governors of CAATs for making decisions on budgeting, and the allocation of resources between major program areas of the colleges.

**RECOMMENDATION 47**

That a Vocational Counselling Service be established as part of the Ministry of Colleges and Universities, the counsellors to be on the payroll of the Ministry and to be transferred from the payrolls of the institutions now employing them. That the Service responsible for the implementation of the counselling function be responsible for admission standards and the selection of counsellors, and for arranging adequate training and educational programs to upgrade the qualifications of counsellors. That the Service be responsible for co-ordinating the distribution of counselling and labour market information, and for ensuring that such information is authentic and objective. That the Service work closely with the Labour Market Information Service proposed in Recommendation No. 37.

**RECOMMENDATION 48**

That the Ministry of Colleges and Universities establish a Training Registry and Information Service incorporating four components: (a) a teaching staff, plant and equipment record; (b) a cumulative course and program record; (c) a cumulative trainee achievement record; (d) a training modules record.

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PART 1 –Origins and current status  
of training in Ontario





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## CHAPTER 1

### Introduction

Since 1964, when the Ontario Apprenticeship and Tradesmen's Qualification Act was enacted, needs have changed and problems in industrial and manpower training have multiplied. The 1964 Act is confined to apprenticeship and the certification of tradesmen, and so Ontario has had no legislative basis for comprehensive policies which provide a framework for the development of manpower and industrial training.

The Industrial Training Branch was established within the Department of Labour in 1964 and was charged with the promotion, administration and modernization of apprenticeship as well as the organization of short-term skill development programs in industry. In 1965, the Colleges of Applied Arts and Technology were introduced to provide post-secondary vocational, industrial and manpower training programs on substantial and varied scales for the people of the Province. In 1967, the federal government abandoned shared-cost programs under the Technical and Vocational Training (TVT) Act (1961) and introduced the Adult Occupational Training Act under which it purchased manpower and industrial training programs for members of the labour force referred to training by Canada Manpower Centres. The TVT Act had provided a framework for the joint development of industrial and manpower training in the Province. After 1967, this no longer existed. More recently, and on a growing scale, the federal government has purchased training services for adults directly from employers.

All of these events have affected profoundly the pattern of industrial and manpower training in Ontario. They have produced a multiplicity of industrial and manpower training programs available both to various elements of the population and to industry. In total, the programs have lacked integration and co-ordination. At the same time, the public resources, both federal and provincial, devoted to this kind of training and education, have escalated dramatically in both real and money terms, since 1964. The federal-provincial partnership in industrial and manpower training has been under severe strain, particularly since 1967, and this had led to



unproductive competition and a confusion of governmental roles.

Until 1972, when both employer- and institution-based post-secondary training programs were placed within the jurisdiction of the Ministry of Colleges and Universities, there was within the province no adequate governmental base for policy guidance and the rational allocation of resources for manpower and industrial training.

It has become increasingly apparent that the Province of Ontario must have a comprehensive policy to guide the various programs. There is a need to define the issues and to recommend the directions which industrial and manpower training should take in the future. To what extent should employers and trade unions be responsible for industrial training? What should be the role of the Community Colleges of Applied Arts and Technology and how should government be involved in the support of industrial training? To what extent should employers and/or public training institutions be used to train unemployed and other members of the labour force? What reforms should be made in the apprenticeship system? Should compulsory certification (licensing) of tradesmen be continued? What are the appropriate roles and relationships of federal and provincial government agencies in determining the directions of training and in administering training programs? What organizational structures within the Government of Ontario should be responsible for industrial training?

All of these issues and questions, and others also, were implicit in the Task Force's Terms of Reference. We have attempted to explore them and to provide answers in terms of specific recommendations.

The Task Force on Industrial Training was established in October 1970 by the Minister of Labour.\*

It was asked to study existing industrial training programs and to make recommendations. In developing its Report, the Task Force was asked to take into account the results of research in progress at the Research Branch of the Ontario Ministry of Labour, the findings of the Review and Assessment Committee (a joint federal-provincial group sponsored by the Department of Manpower and Immigration)

and the experience of the Industrial Training Branch of the Ontario Department of Labour.\*

## 1. Terms of Reference

The Terms of Reference of the Task Force were set out as follows:

- “ Among other matters, the Task Force should consider:
- (1) the relative responsibilities of government and industry for the development of the skills of the Ontario labour force;
  - (2) the various financial provisions that may be made for training-in-industry, and their implications for the scope and volume of skill development in the Ontario labour force;
  - (3) the initiatives that government can usefully take to promote effective training in an industrial setting;
  - (4) the authority for training-in-industry the government might delegate to semi-autonomous boards or other agencies, and what the nature of these agencies should be;
  - (5) the linkages that are required between training-in-industry and other institutions concerned with skill development;
  - (6) the way in which this province's training-in-industry activities should relate to those undertaken by the federal government;
  - (7) the need for developing greater flexibility and efficiency in training-in-industry programs from the point of view of the trainee, the employer, unions and the public;
  - (8) the role the government should play in curriculum planning and implementation of training-in-industry;
  - (9) the extent to which training-in-industry can be used to meet economic stabilization objectives;
  - (10) the need for ensuring adequate standards of competence in the skilled work force, and government's responsibility in this area through, for example, compulsory certification;
  - (11) the role the government should play in the selection of trainees and in regulating practices that restrict entrance to skilled occupations.

In order to consider the above and related matters that the Task Force may decide are important in the development of an industrial training Act, its members should explore as widely as they deem necessary

\* This Report is now being submitted to the Minister of Colleges and Universities, because of organizational changes within the Ontario government made in April, 1972.

\* Now a part of the Ontario Ministry of Colleges and Universities.

the existing written material on training, the legislation and experience of other jurisdictions, and the approaches that have been taken to industrial training, in both the private and public sectors, in Ontario.”

## 2. Approach Taken by the Task Force

The Task Force commenced its work by reviewing the very extensive available literature, both domestic and foreign. Then, under the direction of the Chairman, it prepared, or caused to be prepared, a series of papers on pertinent subjects which were subsequently tabled, studied, and modified. A list of the papers prepared under its auspices is given in Appendix A.

Written briefs were solicited from the public through advertisements in every daily newspaper in Ontario. Scores of these were received from associations, corporations, unions, schools, government agencies, and private citizens. A tabulation, by source, of the briefs received is contained in Appendix B.

Workshops composed of some three hundred individuals, who represented a wide cross-section of participants in the processes of industrial training (management, labour, educators, trainees, etc.), were conducted. Collectively they represented the fields of training for industry at the pre-labour force entry level (e.g., secondary schools), entry level (e.g., technician and apprenticeship programs), and post-entry level (e.g., retraining programs). They centred on what government's role in industrial training should be, and such corollaries as: What is the importance of this role? What is its significance in meeting economic and social needs? What level of involvement (if any) is required by government?

In addition to the workshops, an in-depth, cross-sectional survey of opinion was undertaken among employers, managers and trainers involved with training in Ontario enterprises that were both large and small, and representative of a wide variety of organizations from heavy industry to small hospitality concerns. Management officials were interviewed in some 200 firms. In particular, interviewers (from the community colleges and the Industrial Training Branch, under the overall direction of the Task Force through the Ministry of Labour's Research Branch) sought specific infor-

mation about company training policy and attitudes, employer views on government's role in training, and information on the linkages which should exist between public and employer training programs.

In addition, the Task Force drew on the results of many research studies which were either completed or which matured during the course of its deliberations. These studies were undertaken principally by the Research Branch of the Ontario Department of Labour, or under the auspices of the Review and Assessment Committee of the National Committee of Deputy Ministers on AOTA.

The Task Force's analysis and recommendations contained in the Report are products of all these "inputs" as well as of the individual experiences of its members with manpower and industrial training. The analysis and recommendations have been the subject of intensive discussion and thought at the meetings of the Task Force.\*

## 3. Organization of the Report

The Report is designed to provide the reader with a descriptive background and an analysis of the issues and problems basic to an understanding of the reasons for, and the implications of, the recommendations of the Task Force.

Part I presents the essential factual background required for the analysis of issues contained in the later chapters. It provides a history of industrial, manpower and vocational training in Ontario (Chapter 2); a review of developments in three European countries (Chapter 3); an analysis of the extent and character of training provided by private employers in the province (Chapter 4), and finally (Chapter 5), a review of the publicly supported manpower and industrial training programs in both the institutional and employer training sectors.

Part II of the Report is analytical in character, and makes a number of recommendations on the organizational structures required to support in-industry

\* The lengthy gestation period from establishment of the Task Force in October, 1970 to submission of this Report in July, 1973 is partly accounted for by the length of time required for many of the research studies to be completed, and by the fact that all of its members served on a part-time basis.



training in the province and on its financing. Chapter 6 reviews the issues which have arisen out of the federal-provincial relationship in the promotion and administration of in-industry training in Ontario. Chapter 7 deals with the objectives of industrial and manpower training and with the organizational structure required for the administration of industry training, and finally makes recommendations designed to improve the co-ordination of the federal-provincial relationship in the administration of industrial training. Guidelines for the financing of in-industry training are developed in Chapter 8.

Part III deals with a number of issues and subjects of a more technical character, which could not be analysed effectively within the framework of Parts I and II. The Task Force decided that regulated apprenticeship training should be reviewed and analysed as an integrated whole, rather than in a piecemeal fashion in several chapters of the Report. Chapter 9, therefore, deals with most aspects of regulated apprenticeship and makes recommendations designed for its improvement as a system of training for certain trades. The Task Force was asked to review the implementation of compulsory certification (trades licensing) to determine whether or not it should be continued (Chapter 10). Similarly, it was asked to examine the experience of the Industrial Training Branch in introducing, on an experimental basis, the modular training concept. This has been done in Chapter 11. Finally, the Terms of Reference have implied that the Task Force should seek to determine the role which government (as compared to employers and unions) should play in supporting industrial training and ensuring that it meets the needs of the province. The Task Force believes that a responsibility should be placed on government for improving the relevance and quality of industrial and manpower training. Chapter 12, therefore, analyses the range of issues involved and makes recommendations following from this analysis.

#### **4. Definitions and Concepts**

A few comments on concepts and definitions used in this Report may be helpful.

Those trained by industrial and manpower training programs examined in the Report can be either the employees of employers who assume responsibility for their training, or actual or potential members of the labour force for whom government assumes responsibility in terms of their selection, the kind

of training they undertake and in most cases their financial support during training.

It accords with normal experience to equate in-industry, on-the-job, and employee training with the training of employees by their employers. Similarly, the training by government of present or potential labour force members is usually undertaken in publicly-financed training institutions such as Community Colleges of Applied Arts and Technology. This relationship between the status of trainees and the location of training is characteristic of the vast majority of industrial and manpower training being undertaken in Ontario at present. In fact, even where employers are used by government to train the unemployed at public expense, the trainee becomes an employee and is paid wages while he is trained by the employer.

The location of training is significantly related to responsibility for the progress of trainees and the quality and character of their training programs. When an employer trains his employees, he assumes most of the responsibility for the quality of training even when financial support is provided to him by government. Similarly, a college or school, as a public training institution, assumes primary responsibility for its students and the character of the training it offers. Even in cases where part of a training program takes place in an institution and part on an employer's premises (as in a co-operative program), either the institution or the employer assumes primary responsibility for the total training program.

Our Report introduces the concept of "employer-centred" and "institution-centred" training with respect to the training of potential or actual labour force members by government, at public expense. This is done primarily to underline the options available to government for many occupational areas; training can be undertaken by an employer, an institution, or co-operatively. It is important that primary responsibilities for students, training processes and results be identified as being located either with an institution or an employer for the purposes of financing and accountability. In the view of the Task Force, trainees in either system should have the status of students (not employees) until the completion of their training.

As used in the Report, the terms “training-in-industry” and “on-the-job training” are not necessarily synonymous with “employer-centred training.” The last term is reserved for public training programs in which employers are primarily responsible for the training and receive financial or technical support from government. Thus, regulated apprenticeship is a leading example of employer-centred training.

The main focus of this Report is on the development of “employer-centred training”, and on the kind of support which government should provide to employers for the training of their own employees, or of other members of the population, on behalf of governments. The concern of the Report with institution-centred training is largely from the point of view of how well it serves the needs of employers and the economy of the province, and with the relative roles of employer- and institution-centred training in the total training system of Ontario.

The reader will frequently find the terms “industrial training,” “manpower training” and “vocational training”. The processes of training, and the courses and the institutions covered by these terms, are often common. The terms are differentiated in their usage by the objectives of the programs and, in some instances, by the types of student served. *Vocational training* emphasizes the career goals, interests and aspirations of individuals and most frequently embraces youth who have not yet entered the labour market on a full-time basis. *Industrial training* has the objective of meeting the hiring and promotion requirements of employers. *Manpower training* has the public policy objective of meeting economic and social goals through the training of potential or actual members of the labour force. In Chapter 5, pp. 85-89, the reader will find a classification of current programs in Ontario in terms of these three program categories.

## APPENDIX A

### TASK FORCE STUDIES

- Coleman, Paul H.  
*Workmen's Compensation and Rehabilitation Training* (April, 1972)
- Dymond, W. R.  
*What Needs Does a Training-in-Industry Program Serve?* (November, 1970)
- Dymond, W. R.  
*Proposals for Research Work for consideration of Task Force* (January, 1971)
- Dymond, W. R.  
*Survey of Members of the Labour Force: A Proposal* (October, 1971)
- Hird, H. R.  
*Manpower Development Policies in Ontario* (April, 1971)
- Hird, H. R.  
*The Objectives of Training Programs in Ontario* (April, 1972)
- Kerridge, E. L.  
*Guidelines to an Expanded Concept of the Retraining Program* (June, 1970)
- Lagacé, Michel D.  
*A Review of Ontario's Compulsory Certification Program in Some Selected Trades* (November, 1971)
- Lagacé, Michel D.  
*Industry-sponsored Training Programs in Ontario, August, 1968 – July, 1969*, (March, 1972)
- McIlveen, Neil  
*The Economics of Industrial Training in Other Jurisdictions: An Analysis of the British Industrial Training Act* (July, 1971)
- McIlveen, Neil  
*The Economics of Industrial Training in Other Jurisdictions: The Vocational Training System in West Germany* (October, 1971)
- McIlveen, Neil  
*The Economics of Industrial Training in Other Jurisdictions: The Vocational Training System in Sweden* (March, 1972)
- McKenna, Ian  
*Apprenticeship in a Labour Market Context* (January, 1972)
- Oliver, G. L.  
*Value Statements for Policy and Planning in Industrial Training (Parts I and II)* (November, 1970)



- Oliver, G. L.  
Research Requirements and Content of the Final Report (November, 1970)
- Oliver, G. L.  
The Range of Investigations to be Undertaken by the Task Force (December, 1970)
- Oliver, G. L.  
An Investigation of Alternative Rationales and Related Goals for Industrial and Manpower Training (December, 1970)
- Oliver, G. L.  
Guidelines for Selecting Between On-the-job Training and Institutional Classroom Training as Alternative Means of Instruction (December, 1970)
- Oliver, G. L.  
Programs for Instruction in which Business and Industry Have a Role to Play (April, 1971)
- Oliver, G. L.  
Training by Industry: An Investigation of Criteria and Means, and the Role of Government (May, 1971)
- Oliver, G. L.  
Research Proposal: An Evaluation of the Modular Training System Employed by the Industrial Training Branch (October, 1971)
- Oliver, G. L.  
Industrial Training in Ontario: An Investigation of Problems, Solutions, and the Role of Government (December, 1971)
- Oliver, G. L.  
Creditation, Accreditation, and Licensing: A Clarification of Terms and Concepts in Industrial Training (January, 1972)
- Oliver, G. L.  
Some Key Elements in the Language of Industrial Training (April, 1972)
- Shaw, R. N.
- Kerridge, E. L.
- Swerdfager, J.D.  
An Analysis of the Ontario Labour Force – Size, Category and Flow (September, 1972)
- Strang, Alan
- Whittingham, Frank  
A Proposed Methodology for Cost-Benefit Analysis of Government-sponsored Training-in-Industry (August, 1970)
- Strang, Alan
- Whittingham, Frank  
An Analysis of the Characteristics of Trainees from selected Government-sponsored On-the-job Training Programs in Ontario (March, 1970)
- Swerdfager, J. D.  
Role of the Government in the Control of Industry-based Training in Various European Countries (December, 1970)
- Whittingham, Frank  
Overall Purpose and Scope of an Industrial Training Program (December, 1970)
- Whittingham, Frank  
General Economic Conditions and Expected Short-run Trends (March, 1971)
- Whittingham, Frank  
The Supply of Training from Private Employers (April, 1971)

## APPENDIX B

### SUBMISSIONS TO THE TASK FORCE ON INDUSTRIAL TRAINING

Total received: 58, as follows:

Source group	Briefs received
Individuals	12
Corporate	10
Employer associations	12
Academic:	
community colleges	11
secondary schools	2
Organized labour	5
Government	6
Total	58

## CHAPTER 2

### *The evolution of industrial training in Ontario*

At the turn of this century, farming began to grow less important in Ontario, and qualified manpower was needed to staff the new and growing industries. The prerequisite to the development of a skilled labour force appeared to be the “most advanced systems and methods of industrial training.”\* As a result, both industrial and vocational education came to be recognized for their economic as well as educational value.

The need for skilled and technical manpower led the Province of Ontario in 1909 to appoint John Seath, the Superintendent of Education, to inquire into technical education in other countries with a view to recommending a program for Ontario. Seath travelled to Europe and the United States and submitted his report in 1911.† The federal government was also concerned with the promotion of vocational and technical education, and in 1910 established a Royal Commission on Industrial Training and Technical Education. The purpose of the Commission was to inquire into the “needs and present equipment of the Dominion of Canada representing industrial training and technical education, and into the systems and methods of technical instruction obtaining in other countries.”‡ The Commission was established because it was recognized that industrial efficiency was essential to the development of Canada and for the promotion of foreign trade.§ To achieve industrial efficiency it was felt that the most sophisticated methods of industrial training must be introduced.

Seath’s report led to the passing of the Ontario Industrial Education Act of 1911. His recommendations aimed at providing a closer connection between school life and the world of industry.\*\* For students who remained in school after fourteen years of age, Seath recommended the following classes of day schools:

- (1) the General Industrial School with courses in shop work, English, science and mathematics relating to the needs of working men and women;
- (2) the Special Industrial School for trades and similar occupations with full-time and part-time co-operative instruction;

\* Royal Commission on Industrial Training and Technical Education Report, (Ottawa: King’s Printer, 1913), p. 1.

† John Seath, *Education for Industrial Purposes* (Toronto: 1911).

‡ Royal Commission on Industrial Training and Technical Education Report, (Ottawa: King’s Printer, 1913), p. 1.

§ Ibid., p. 1.

\*\* Seath, *Education for Industrial Purposes*, p. 345.



(3) the Technical High School for students who would remain three or four years at school and were preparing for positions in industry.

These recommendations were incorporated in the 1911 Act. The schools were administered separately from the academic secondary schools, a discriminating approach apparently representative of the prevailing mood of the community.

There was an additional reason behind Seath's recommendations for the introduction of a vocational training system early in this century.\* Ontario was aware of the Royal Commission investigation and felt that if it had its own established system, it would be in a better position to take advantage of federal financial support. The tailoring of training programs to qualify for federal financial aid has thus been an early and continuing feature of industrial and manpower training policies in Ontario.

In 1919, the federal government passed the Technical Education Act, which enacted several recommendations of the Royal Commission. In accordance with the provisions of the British North America Act, the Commission stated that occupational training programs should be under provincial control and regulation, although financial support could come from various sources including the federal government. As a result, the first Technical Education Act defined the responsibilities of the provinces and of the federal government in the field of vocational education. The provinces were to have complete jurisdiction over matters of education, with financial assistance from the federal government to implement a more efficient and uniform program.† A federal role was justified on the basis of:

- (1) Canada's need for an adequate supply of skilled workers to promote industrial growth;
- (2) the provision of equality of educational opportunity;
- (3) the high cost to local and provincial authorities of providing adequate programs and facilities.‡

\* Margaret J. Brewin, *The Establishment of an Industrial Education System in Ontario*, M.A. thesis, University of Toronto (1967), p. 45.

† Canada, Department of Labour, National Conference on Technical Education (1920), p. 11.

‡ Donald E. M. Glendenning, *Impact of Federal Financial Support on Vocational Education in Canada*, Ph.D. thesis, Indiana University (1964), p. 6.

Under the Technical Education Act, the federal government would pay up to 50 per cent of provincial government expenditure for technical education. Each province would receive an initial grant of \$20,000, the remainder of the support being allotted in proportion to population. Vocational training was defined as any form of education to qualify youth for its chosen vocation. Vocational education for persons under 14 years of age was excluded from federal support, as were courses at the college/university levels and occupational instruction in religious or privately owned schools. Financial assistance was provided for the following purposes:

- (1) purchase or rental of land, buildings, furnishings, and equipment;
- (2) remuneration and travelling expenses of employees incurred in the administration of vocational education, and all expenses incidental to such administration;
- (3) remuneration of teachers employed to conduct vocational classes;
- (4) training of teachers for vocational work;
- (5) maintenance of plant and equipment.

The provisions of this Act were in effect until 1929, at which time Ontario was the only province to have spent its allotted federal funds. The cost-sharing nature of the program had enabled the federal government to influence indirectly the development of vocational education, for to be eligible for federal funding, the provinces had to meet the requirements of the Dominion-provincial agreements authorized by the Act. Thus, federal influence evolved as a continuing factor affecting the directions and extent of manpower training and vocational education programs in Ontario.

In the 1920s, there was a shortage of skilled journeymen in the construction trades, and employers and organized labour were therefore striving to devise better training methods for young workers. Even then there was considerable use of machine-

made building materials such as doors, stairs and trim, so a young worker could acquire only limited experience on the job.

In a field where the worker with broad experience was in a position to secure steady employment and promotion, an apprentice's chances of becoming a skilled tradesman were reduced. If the construction industry was to have sufficient skilled labour, it needed a better training system. Representatives from the industry believed that to be effective the new scheme should take the form of vocational and technical education under government supervision.\* The trade unions and employers formed a voluntary organization in 1927, known as the Construction Apprenticeship Council of Ontario, and worked through it to develop apprenticeship training schemes. The Council's efforts resulted in the passing of Ontario's first Apprenticeship Act in 1928. Initially, this Act applied only to the building trades, and stated that a minor (who had to be at least 16) could not be employed in a trade for longer than three months without an apprenticeship contract, which had to cover a minimum period of two years. The first apprenticeship trades were bricklayer, mason, carpenter, painter and decorator, and plasterer. By the time of World War II, electrician, motor vehicle repairman, plumber, sheet metal worker, steamfitter, barber, and hairdresser had been added.

The development of apprenticeship encountered several problems. It was difficult for apprentices to secure continuing work in the unstable construction industry and many employers, uncertain of their future needs, refused to hire them. In addition, the day classes required under the Act could not be established until some compensation for apprentice wages during school hours was provided. This was eventually effected through an assessment scheme: all employers of workers in a designated trade were assessed with regard to the payment of living allowances to apprentices while they were attending classes.† This scheme came to an end when payrolls dropped sharply during the depression of the thirties and, although it was the intention to renew it when business improved, the practice was never resumed. In 1942, legislation was enacted to provide public

funds for the types of activity that the assessment scheme had covered.

The greatest demands hitherto made on Ontario's labour force arose during World War II. The high unemployment of the depression years left insufficient skilled workers for the Armed Forces and the war industries, so the federal government enacted the War Emergency Training Program in 1940. Under this program, training was carried out in technical schools, universities, industrial establishments, or other centres for both men and women who were sixteen years of age or older and who had entered war industries or wished to do so.\* The program was undertaken entirely at federal expense and covered such costs as salaries for full-time teachers and instructors, trainees' allowances and travelling expenses, materials, and tools.

In 1942, the Vocational Training Co-ordination Act came into being as a basis for the consolidation and expansion of existing training programs. In conjunction with the provinces, the federal government was empowered to conduct any vocational training necessary for the war effort, including the training of war industries workers, tradesmen for various branches of the Armed Forces and persons discharged from the Armed Forces and in need of rehabilitation. Vocational training was defined as "any form of instruction to fit any person for, or increase his skill and efficiency in, agriculture, mining, construction, manufacturing, or any other primary or secondary industry." Provision was made for four types of agreement with the provinces. Under the Vocational Schools Assistance Agreement, provinces could be reimbursed for up to 50 per cent of their expenditures for capital and operating costs of vocational schools and programs. Funds were allocated in relation to the fifteen to nineteen-year-old population in each province. There was another agreement whereby the federal and provincial governments accepted equal shares of all normal instructional, administrative, and materials costs for the classroom instruction of apprentices. Provision was also made to subsidize correspondence courses and special projects, such as training for veterans. The financial arrangements were again on a 50-50 basis.

\* *Province of Ontario, The Tenth Annual Report of the Department of Labour (1929), pp. 75-76.*

† *Province of Ontario, The Eleventh Annual Report of the Department of Labour (1930), p. 11.*

\* *Glendenning, Impact of Federal Financial Support, p. 58.*



Developments during the war years influenced the future directions of manpower training programs in Ontario. Federal funds became available for workers of all ages to be trained outside the institutional educational system. Most significant was the training given to workers in the war industries. Capital assistance was also provided for the creation of vocational schools and other training facilities.

Industrial training in the immediate post-war years was aimed primarily at ex-servicemen, but once this was completed there was little initiative taken by either level of government in vocational and manpower training. Direct capital investment was stimulating economic growth, and most labour shortages were met through immigration.

The growth of employment eventually tapered off, and the annual average unemployment rate in Ontario of 2.4 per cent in 1956 had climbed to 5.5 per cent in 1961.\* The cause of this rise in unemployment was the subject of considerable debate. Proponents of the "demand-deficient" school claimed it was a result of inadequate total spending; the "structuralists", on the other hand, argued that it was caused by the qualitative imbalance between the demand for and the supply of labour.† It is not our intention here to comment on the merits of these competing theories, but rather to underline the emphasis that was placed by the "structuralists", and by the federal government in the early sixties, on an adequately trained labour force as a means to reduce unemployment.

The pace of technological and economic change, and migration from rural to urban areas, had significantly affected both the industrial and occupational composition of the labour force, and this is what caused the concern about structural unemployment. In 1931, Ontario had 22.6 per cent of its labour force employed in agriculture; by 1961, this figure had fallen to 7.1 per cent.‡ The relative significance of various occupational groups was also substantially altered. In 1931, labourers accounted for 11.1 per cent of the Ontario labour force; in 1961 the

percentage was only 5.1. All the trends indicated that higher levels of skill were required. Two additional factors influenced this conclusion: first, the greatly increased number of youth – the result of the high birth rates of the war years – that required training; second, an awareness of the risk inherent in an unrealistic reliance on immigration as a major source of skilled and technical manpower.\* And so it became increasingly evident that more training facilities and programs were essential if Ontario was to have skilled manpower, and economic growth was not to suffer.

In 1960, the federal government passed the Technical and Vocational Training Assistance (TVTA) Act to meet two objectives: first, to increase employment and foster national industrial development; second, and more important, to stimulate and broaden the scope of technical and vocational training throughout Canada. This legislation was intended to serve the training needs of the following three main groups:

- (1) youth still in the regular school system who intended to enter the labour force upon leaving school;
- (2) youth and adults who had completed the secondary school program and who wished to receive further training prior to entering the labour market;
- (3) adults who had left the regular school system and were employed, or sought employment, in a trade or occupation.

The Act authorized the Federal Minister of Labour to enter into six-year agreements with any province, to provide technical and vocational training programs for youth and adults who required them in order to work at their full potential. Eleven programs developed from the Act; the major ones are described below.

\* Statistics Canada, *The Labour Force*, cat. no. 71-001 (Ottawa: 1971).

† G. Peter Penz, *Structural Unemployment: Theory and Measurement* (Canada, Department of Manpower and Immigration, 1969), p. ii.

‡ Ontario, *Department of Labour, Research Branch, Occupational Trends in Ontario 1931-1961*, (Toronto: June, 1967).

\* A study for the Royal Commission on Canada's Economic Prospects documented the need to develop adequate supplies of skilled and professional manpower in the sixties: W. R. Dymond and J. P. Francis, *Skilled and Professional Manpower in Canada, 1945-1965* (Ottawa: Queen's Printer, 1957).

*a. The Technical and Vocational High School Program*

Federal government assistance amounted to 50 per cent of any expenditures on full-time courses or programs offered by regular schools and technical, vocational, and composite high schools where a minimum of 50 per cent of school time was spent in preparing for an occupation. Funds were allotted in relation to the population of fifteen- to nineteen-year-olds in each province. Ontario received about \$840,000 per year – relatively insignificant in assisting the total operating costs of these programs.

*b. Training in Co-operation with Industry*

The federal government paid 50 per cent of approved training programs (75 per cent for training the unemployed if they were getting work for part of the week). Projects included supervisory training for those in appropriate positions, skill-upgrading for employees, and retraining for those who needed to learn new skills or occupations. The training was offered in public or approved private schools, and in industry.

*c. Training of the Unemployed*

The aim of this program, which ran from June 1961 to March 1967, was to increase the basic education and the trade and technical and occupational competence of the unemployed. Federal assistance amounted to 75 per cent of training costs for a minimum number of days of training given each year by the province. Fifty per cent of the provincial costs were met if the training lasted less than the minimum length of time.

*d. Capital Expenditure Program*

Before March 31, 1963, in an attempt to stimulate the economy, as well as the growth of technical and vocational education, the federal government paid 75 per cent of the costs of construction, purchase, or alteration of approved facilities for technical or vocational training. They also contributed 75 per cent of the equipment costs. Federal assistance at 75 per cent continued up to \$480 per person in the fifteen-to-nineteen age group in each province. Thereafter the rate was reduced to 50 per cent, except on capital expenditure for facilities for the retraining of the unemployed which remained at the 75 per cent level.

Other agreements under the TVT Act were designed to assist training for technicians, trades and occupations, the disabled, federal departments and agencies, and technical and vocational teachers. Student aid and apprenticeship programs were also supported.

Simultaneous with the federal government's launching of these programs, Ontario initiated a major revision of its secondary school system, under what is commonly referred to as the Robarts Plan. It was recognized that the system was inadequately fulfilling two of its functions\* – preparation for higher education and training and education for direct employment. To meet the needs of students who planned to become employed as soon as they left school, changes were made in school organization and curricula. Secondary schools were divided into three divisions: Arts and Sciences; Business and Commerce; Science, Technology and Trades. More emphasis was placed on practical training in each of these divisions. A four-year employment-oriented program was initiated for students who did not wish to go on to university. Two federal-provincial agreements signed under the TVTA contributed significantly to the expansion of vocationally oriented programs. The Technical and Vocational Capital Expenditure Program made possible the rapid expansion of existing schools and extended the availability of technical and vocational education to many parts of the province for the first time.

On April 8, 1962, a resolution was adopted by the Legislative Assembly of Ontario that "a Select Committee of the House be appointed to examine, investigate, inquire into, study and make recommendations concerning:

- “(1) the Apprenticeship Act and the regulations made thereunder;
- (2) all aspects of the apprenticeship system as presently established in Ontario, and more particularly as it pertains to the training of persons in trades or crafts relating to the construction industry and in industrial undertakings;
- (3) the training of workers and more particularly retraining and upgrading of their skills;

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\* John P. Robarts, Minister of Education, "A New Programme for Secondary Schools in Ontario" (Ontario Department of Education, mimeo.).



(4) the roles of government, industry, and labour in this field.”\*

The decision to form this committee resulted from the dynamic technological and economic trends that had been developing in the occupational composition of the provincial labour force. Several factors, including consumer demand changes and foreign trade developments, were mentioned as responsible from these trends; but accelerated technological change was thought to have the most significant effects on manpower requirements and occupational composition.†

The committee's task was to outline what was required to provide the people of Ontario with a comprehensive and up-to-date industrial training system, and it undertook an investigation of manpower development needs and practices in Ontario. The Report (hereafter referred to as the Simonett Report after its chairman), submitted in February, 1963, provided the basis for many of the future changes in Ontario's apprenticeship and training-in-industry programs.

With regard to apprenticeship, the Simonett Report recommended that compulsory certification be extended to cover additional trades.‡ The committee's intention was to give greater public acknowledgement to the skills acquired through apprenticeship in order to attract a larger number of trainees. Compulsory certification, it was argued, would give recognition and status to the tradesman. It was also suggested that the age limit of 21 years be removed so that more apprentices might be attracted. Credit for work completed in secondary school should count towards apprenticeship credits. Similarly, experience gained in a trade, before application for apprenticeship, should be recognized.

These recommendations, including provision for the compulsory certification of more trades, were written into the Apprenticeship and Tradesmen's Qualification Act of 1964. When the Act had been passed, the trades of electrician, watch repairer, and refrigeration and air conditioning became compulsorily certified immediately. Plumbers, steamfitters and sheet-metal workers were certified on October 1, 1965.

Under the Act contracts of apprenticeship were rewritten to specify the number of hours, rather than years, which an apprentice must serve. This was because of the trend towards a shorter work week, which could have shortened the duration of the apprenticeship period.

Several recommendations of the Simonett Report not incorporated in the Act should also be mentioned. It was suggested that varying levels of proficiency in the compulsory certified trades should be recognized in order to ensure more flexibility. Educational requirements should also be set for those not aspiring to top journeyman status. The Report also expressed concern over the lack of participation of employers in apprenticeship programs, and three possibilities to combat this situation were proposed. First, an employer assessment scheme might be reinstated. Second, government contracts should not be given to employers who are in a position to employ apprentices but do not. (This requirement was, in fact, written into the Act, but no regulations have been drawn up under it.) Third, there should be a minimum ratio of apprentices to journeymen. (There are ratios written into the regulations, but they are maximum ratios to prevent the excess hiring of lower-paid apprentices at the expense of higher-paid journeymen.)

The Simonett Report also suggested that the respective responsibilities of the Departments of Education and Labour be clarified and described. The Department of Education was responsible for the agreements between the federal government and Ontario (except apprenticeship) signed under the TVTA. The Department of Labour was responsible for apprenticeship but wished to develop additional in-industry training programs. Clear descriptions of the departments' responsibilities were obviously necessary to allow programs to operate more efficiently and to avoid duplication. A division of responsibility was negotiated between the two departments. In general, the Department of Labour became responsible for all skill training, with an occupational objective, taking place within industry. The Department of Education took charge of training outside industry and all employee upgrading training.\*

\* Province of Ontario, Report of the Select Committee on Manpower Training (February, 1963), p. i.

† Ibid., pp. 5-7.

‡ In 1963, compulsory certification was in effect only in the trades of motor vehicle repair and hairdressing.

\* "Statement of Training Jurisdictions," agreed to in an exchange of correspondence in March, 1968, between N. A. Sisco, Director, Applied Arts and Technology Branch, Ontario Department of Education, and R. M. Warren, Executive Director, Manpower Services, Ontario Department of Labour.



The promotion of government-assisted training-in-industry was launched on a substantial scale in 1964, when the Ontario Department of Labour initiated a comprehensive program to train unskilled and semi-skilled workers to higher levels. Administration of this program was entrusted to the newly-created Industrial Training Branch (ITB). The ITB was charged with the following tasks:\*

- (1) the provision of flexible apprenticeship programs in trades where no formal training schemes existed;
- (2) modernization of existing long-term apprenticeship schemes;
- (3) provision of short-term on-the-job skill development projects for skills that could be learned on the job in less time than was traditional in apprenticeship trades.

Apart from the administration of apprenticeship, the main function of the ITB was to administer the Short-term In-industry Training Program (STIT). Under this program some industrial employees were given an opportunity to upgrade their skills or learn new ones on the job. STIT was geared to meet industry's immediate manpower needs.

The Department of Education, with financial support under the TVTA initiated a Training in Business and Industry Program (TIBI) in 1965. Its purpose was to assist employees in business and industry to upgrade and improve their skills as employees and as members of the labour force, and to encourage employers to become more competitive and so improve Ontario's economy.† Courses offered under TIBI were designed to improve worker's eligibility for employment, were expected to have a substantial theoretical content, and were not unique to one company. The Department of Education extended financial support for up to one-third of the costs, the remainder being the responsibility of the employer and the employee.

In 1965, an amendment to the Department of Education Act provided for a system of Colleges of Applied Arts and Technology (CAATs) throughout Ontario. The colleges had three major responsibilities: to provide courses not suited to secondary schools; to meet the needs of graduates from any secondary school program other than those intending to go on to university; and to offer training for adults and out-of-school youth who had not graduated from secondary schools. In other words, the colleges were to provide a comprehensive program, variable in length and completely flexible, to fulfill the needs of both adults and young people leaving the school system.

The Basic Documents\* define the roles of the colleges, and list the reasons for their establishment. First, rapid technological change would continue to affect our social and economic systems. It would alter the nature of individual jobs and a much higher level of education would be required by everyone. Second, the post-war baby boom was straining Ontario's post-secondary educational facilities. Since it was recognized that not all students should go to university, a new type of institution would be necessary to serve such students and to offer a type of training of which universities were not capable.

Colleges were established in twenty regions to serve all areas of the province. When an Institute of Trade or Technology was located in a region, it provided the nucleus for the new institution. Each college had a responsibility to respond to local needs and was given a considerable degree of autonomy. Provision was made for the establishment of a local board of governors who would possess the powers of incorporation. Local advisory committees in various branches of occupational study were set up.

The CAATs serve both full- and part-time students. At present they administer a wide range of educational and vocational programs for the local community which cover 61.6 per cent of their total enrolment.† Adult retraining programs, most of which are purchased by the Federal Government under the Adult Occupational Training Act (1967), have the next largest enrolment. These adult students, who are mainly unemployed, are referred to

\* Ontario, Department of Labour, 46th Annual Report (1965), p. 5.

† Ontario, Department of Education, "Guidelines, Training in Business and Industry" (mimeo., 1971-72).

\* Ontario, Department of Education, Colleges of Applied Arts and Technology: Basic Documents (June 1966).

† Ontario, Commission on Post-Secondary Education in Ontario, The Ontario Colleges of Applied Arts and Technology (Toronto: Queen's Printer, 1972), p. 37.

training by Canada Manpower Centres; 5.0 per cent of the students are apprentices taking classroom instruction. TIBI and Management Development Programs are also offered by the colleges, as special provincially initiated part-time programs in addition to the regular part-time or extension programs.

In 1966, the Ontario Legislature passed the Rehabilitation Services Act to expand services already offered under the federal-provincial rehabilitation program. Provision was made for the Minister of Public Welfare to make agreements with the federal government or with any person or organization, for the purpose of providing vocational rehabilitation services to disabled persons. Grants were to be offered to approved organizations for the establishment and expansion of workshops and for counselling services, medical, psychological and social services, travelling allowances, and additional equipment. These programs were operated by the Vocational Rehabilitation Services Branch of the Department of Public Welfare.

In 1967, the federal government came to the conclusion that the agreements signed under the TVT Act were no longer effective in serving Canada's manpower development priorities. Under cost-sharing agreements of the Act, the wealthier provinces had benefited more than the poorer because it was easier for them to raise their half of the required financial assistance. Most provinces had made little progress in training adult members of the labour force, and over two-thirds of the federal funds had been spent on youth education and training. There were complaints from the provincial governments that federal support had distorted secondary and post-secondary educational structures. In some federal and provincial quarters, especially the Treasuries, it was thought that the federal government should withdraw from direct participation in the financing and direction of training and educational programs in provincial educational institutions.

The Adult Occupational Training Act (1967) altered drastically the form and areas of federal funding of vocational and manpower training in the provinces. The federal government would now concentrate on providing financial assistance only for the training and retraining of adults, and would leave the provincial governments free to exercise their full responsibility for, and authority over, in-school youth training programs. Training would be

purchased for an individual adult by the federal government from the provincial government, and his training allowance would be paid directly to him by the federal government. Training was made available to anyone above school leaving age, but allowances would be paid only to those who had been in the labour force for three years or who had dependents.\* This was intended to ensure that young people could not leave school in order to finance their training through allowances.

Not all federal support for institutional education and training was withdrawn. The federal government agreed to pay 50 per cent of all provincial expenditures for post-secondary education, as it was felt that this method of transferring fiscal resources would not distort provincial educational priorities as had the shared-cost agreements of the TVT Act. The federal government would of course continue to promote nation-wide economic growth, but would restrict itself to direct intervention on behalf of only adult workers who required training.

In 1971, the Applied Arts and Technology Branch of the Ontario Department of Education was transferred to the newly formed Department of Colleges and Universities, and it took over the responsibility for occupational training outside the secondary school system. Changes have occurred in the responsibilities assigned to the Department of Colleges and Universities as a result of reorganization within the Ontario government in 1972. It has now become the Ministry of Colleges and Universities, and is a component of the government's Social Development Policy Field†, part of whose responsibility is to provide constantly improving general education programs that contribute to the intellectual growth and development of citizens. To fulfill part of this responsibility, the Industrial Training Branch of the Department of Labour was transferred to the Ministry of Colleges and Universities. The implementation of Ontario's major manpower development and vocational training programs is thus under the direction of one ministry.

\* In May, 1972, a bill was introduced in the Parliament of Canada to make any person eligible for training eligible for training allowances as well; i.e., the three-year membership of the labour force as a pre-requisite to eligibility for training allowances was reduced to one year.

† Ontario, Committee on Government Productivity, Interim Report Number Three (December, 1971), p. 20.



In December 1971, prompted by continuing high levels of unemployment, the Canada Department of Manpower and Immigration announced a new Training-on-the-job Program. It aims at encouraging employers to prepare for employment expansion by hiring unemployed but employable workers in actual work situations. Federal government assistance to employers amounts to 75 per cent of the wages paid to trainees, or a tax incentive which would provide equivalent benefits through the write-off of wage costs at an appropriate level. Unemployed members of the labour force of all ages, are eligible for referral to training by Canada Manpower Centres, and the program can last from three to twelve months. This is the first instance of direct federal government assistance to on-the-job training in industry.

### **Summary**

This brief outline of the history of industrial training in Ontario has indicated several predominant trends which will influence the future of manpower training in the province. First, occupational training has become more a public responsibility. Developments over the last 50 years have tended to introduce an increasing number of programs, and more workers have become eligible for government-assisted training. Simultaneously, the role of the federal government has changed increasingly and importantly. Proposed changes in the Adult Occupational Training Act and the new Training-on-the-job Program have introduced the federal government to areas that were previously exclusive concerns of the provinces. Although Ontario had designed its vocational training programs to qualify for federal financial support, until 1969 it retained administrative authority over the content and direction of training and those eligible to participate in the programs. However, the degree of provincial control in these areas now seems to be decreasing.

The continuing concern over the increasing impact of economic and technological change is also important. It became evident during the industrial development at the turn of the century that there was a lack of qualified manpower to staff the new industries. The apprenticeship system in Ontario was introduced because new building techniques did not allow young tradesmen to become fully qualified in their respective trades. The debate over structural unemployment and the "automation scare" sparked the massive industrial training undertakings in the 1960s.

The most important development in recent years has been the creation of the Colleges of Applied Arts and Technology, which have unified the diverse system of training institutions that existed in the province. The CAATs provide part- and full-time instruction to prepare secondary school students for the labour force, training for the unemployed, apprenticeship classroom instruction and industrial training for employees of business and industry. The growth of the CAATs, since their introduction is a measure of their acceptance by local communities as skill development and vocational training centres for their workers.



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## CHAPTER 3

### *What are the alternatives? A look at industrial training in the United Kingdom, West Germany and Sweden*

To acquaint itself with some different approaches to industrial training, the Task Force undertook studies from secondary sources of industrial training programs in three European Countries – the Industry Training Board system in the United Kingdom, the apprenticeship system in West Germany and the labour market program in Sweden.\* This chapter summarizes and compares the analyses undertaken in those studies with particular reference to:

- (1) the objectives and orientation of each training system;
- (2) the target populations served by the system;
- (3) the relative emphasis placed on institutional versus on-the-job instruction; and
- (4) the locus of financial and administrative responsibility for training among the individual, the private sector and public agencies.

The comparison will be followed by an assessment of the relative merits of each approach and some thoughts on the relevance to Ontario's system of the experience in these three countries.

Comparing training institutions and policies in three countries, within the confines of a single chapter, is hazardous. Considerable selectivity (or subjectivity) is necessary in deciding which aspects to include. Furthermore the "compare and contrast" method tends to reduce the reader's appreciation of each system as a whole – as a reasonably logical and comprehensive response to a set of social, economic and institutional factors. Hopefully the descriptive sections will compensate for this loss.

One cautionary note is necessary. The information in the following pages is already in some danger of obsolescence. Early in 1972 the British Government announced its intention to modify drastically the Industry Training Board system. Similarly, legislation passed in 1969 in Germany suggests that some alteration of the apprenticeship system is likely. Unfortunately the situation, particularly in Britain, is too fluid to undertake any meaningful analysis of the proposed changes. However, where applicable,

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\* Neil McIlveen, *The Economics of Industrial Training in Other Jurisdictions: An Analysis of British Industrial Training Act; The Vocational Training System in West Germany; The Vocational Training System in Sweden (Research Branch, Ontario Ministry of Labour, 1971-72 unpublished study).*

these changes will be mentioned, particularly as they buttress some of the critical evaluations of the present systems.

### 1. Background factors – the orientation of the training system

Industrial training, like any other aspect of public policy, is the product of a complex of social, economic and institutional conditions unique to each jurisdiction. These background factors exert a strong influence on the overall direction or orientation of a training system. This orientation, in turn, influences several important variables of the training system, most particularly the decisions on who is to receive training.

a. *Britain:* The symptoms of malaise in the British economy have been widely publicized. For the past few decades the country has been plagued with chronic balance of payments difficulties and a sometimes chaotic industrial relations scene. In an effort to bring some order to the economy, successive governments have indulged in forward economic planning. Two important conclusions resulted from these activities. First, because of the post-war baby boom, large numbers of school leavers would be entering the labour market. Secondly, it was predicted that rapid economic growth would be hampered by an apparent “skilled manpower gap” of considerable proportions. The 1965 National Plan\* was most explicit. It calculated that a 25 per cent increase in gross national product over the years 1965 to 1970 would, after allowing for inter-industry mobility, leave a potential shortage of over 400,000 skilled workers in manufacturing and service industries.

We now know that the predicted shortage was never that acute, primarily because the economy achieved only one-half the growth anticipated during the six-year period. However, it was, in part, the expectation of such a manpower gap that created a national “training consciousness” and resulted in the passage of the Industrial Training Act of 1964. This Act, and the White Paper which preceded it, pointedly made the connection between increases in the supply of skilled manpower and improvements in the rate of economic growth. The White Paper emphasized that:

“It would be impossible to secure the objective of a steadier and more rapid rate of economic growth unless skilled manpower is available on a growing scale. This means that the rate of industrial training must be increased.”\*

The White Paper also drew a parallel between the large volume of resources devoted to training in other industrial nations and the impressive performance of their economies.

b. *West Germany:* It is difficult to present the background factors influencing vocational training in West Germany without describing the entire system. Apart from some minor alterations, the system has remained structurally unaltered for most of this century. Many aspects, most notably an almost unquestioning faith in the benefits of apprenticeship as a method of training, are products of an even longer historical tradition. As most of these factors will receive closer examination later, we will confine ourselves to a fairly cursory description.

The pervasiveness of formal apprenticeship is the most distinctive feature of the German system. About 65 per cent of all persons aged 15-19 enter a formal apprenticeship program lasting from three to three and one-half years. In 1965 this amounted to about 1.32 million apprentices, or almost five per cent of the total labour force.† Apprenticeship exists in almost all wage and salaried occupations. A youth may be indentured in any of approximately 450 state-recognized crafts or 125 learnership trades (one – two year apprenticeships) in industry, commerce or the handicraft occupations.‡

Apprenticeship is an almost inviolate constant of the German system. This is so because German employers, who dominate the system, see apprenticeship not only as a technique of skill acquisition but also as a vehicle for ensuring the personal and social development of the trainee. Typical of their comments is the following statement by the Con-

\* Ministry of Labour, Industrial Training: Government Proposals, Cmnd. 1892, (December 1961), p. 3.

† All data from Walter Niens, “The Historical and Social Background to Education Within Industry in West Germany,” in J. A. Lauwerys and D. G. Scanlon, eds., *Education within Industry, The World Year Book of Education*, (New York: Harcourt, Brace & World, 1968) p. 116. The 1.32 million apprentices compares with 168,000 students enrolled in full-time technical schools and 493,000 in engineering schools, teachers’ colleges and universities.

‡ Frederic Meyers, *Training in European Enterprises* (Institute for Industrial Relations, University of California, 1969), p. 45.

\* The National Plan, Cmnd. 2765 (London: HMSO, 1965) pp. 4-5.



federation of German Employers' Associations:

“The employer accepts particular responsibility for the technical training of the apprentice and his personal development. The obligation is expressed in the fact that personality development is an inherent part of the apprentice relationship . . .” \*

The “economic miracle” that characterized Germany's postwar resurgence is another important influence on its training system. The availability of skilled manpower is seen as a mainstay of this development and further, the “miracle” was performed by people who, in the words of an American commentator, “would have been categorized as high school dropouts in the United States.” † Thus the German system, like the British, has emphasized the close positive relationship between training and economic growth. As the Confederation of German Employers' Association report put it:

“the training of qualified workers and of a reserve of qualified young people is essential to fruitful economic development in our age of technology. Vocational training is thus of the utmost importance to continued technical development and industrialization.” ‡

c. Sweden: Considerable precision is necessary in defining the factors influencing the Swedish adult retraining program (known as “training for labour market reasons”) because of the much larger role assigned to industrial training in Sweden, relative to the other jurisdictions. Training is only one facet, albeit a large one, of an overall “active” manpower policy. Most everything that is even tangentially related to manpower – mobility programs, public works, information and placement services, unemployment insurance, training, regional development, and so forth, is combined in an integrated policy package. Furthermore, manpower policy is viewed as an equal partner of more traditional economic policies as a device to ensure the responsiveness of the labour market to monetary and fiscal stimuli. As part of this overall manpower strategy, the objectives of the training program are largely predicated on macroeconomic policy goals.

Three factors emerge as important influences on the direction of the Swedish training effort. The first is the critical labour shortage. Sweden experiences the lowest population and labour force growth among all industrialized countries combined with a high rate of economic growth. This condition is predicted to continue at least for the next decade.\* With an expanding economy, it has become imperative to utilize fully the country's potential manpower resources. As a result much emphasis has been placed on assisting marginal labour force participants – housewives, the handicapped and older workers – to undertake skill training and permanent employment.

The second major influence on the training system has been the special nature of industrial organization in Sweden. This extends not only to the relative power of unions, employers and government agencies but also to the nature of the relationships among these institutions. The Swedish labour force is highly organized, with about 80 per cent of wage and salary earners belonging to a trade union. For the most part, the unions are organized on an industrial rather than a craft basis. The unions, in turn, belong to very powerful confederations, the two largest being the Swedish Confederation of Trade Unions (*Landesorganisation i Sverige* or LO) and the Central Organization of Salaried Employees (*Tjänstemännens Centralorganisation* or TCO). Both confederations maintain a close discipline over their affiliates in such matters as collective bargaining. Because of this power, union regulations have been fashioned so that the worker's mobility is not seriously impeded. † Restrictive practices are rare. Unemployment benefits (unemployment insurance funds are operated by the unions) and other fringe benefits accruing to union membership are completely portable. The confederations are also highly visible organizations within Swedish society. As a result of this, and because of their close identification with the ruling Social Democrat Party, they have tended to address themselves to larger social

\* Confederation of German Employers' Associations, *Vocational Training in the Federal Republic of Germany* (Köln/Rhein: 1962), p. 7.

† Meyers, *Training in European Enterprises*, p. 159.

‡ Confederation of German Employers' Associations, *Vocational Training*, p. 5.

\* See *Statistika Centralbyran* (Central Bureau of Statistics), *Labour Resources 1965-1990* (Stockholm: 1971), Table I, p. 11. The study predicts a 4.5 per cent growth in the Swedish labour force for the period 1970-80. This compares to a projected 24.9 per cent in Ontario's labour force between 1971-81. Latter figure from Ontario Labour Force Projections 1968-91. (*Economic Planning Branch, Department of Treasury and Economics*, 1968), p. 26.

† Potential mobility is also enhanced by the absence of official skill certification. Successful trainees receive only a certificate of attendance. In addition, skilled worker status can be attained by employment in an occupation over a number of years.



issues. It was LO economists, for example, who first formulated the concept of an active manpower policy.

Employers are organized into their counterpart confederations, the largest being the Swedish Employers' Confederation (Svenska Arbetsgivarforeningen or SAF). SAF, like LO, exercises considerable control over its membership. This high degree of centralization has facilitated the development of a unique form of industrial relations. By virtue of a "basic agreement" reached between them in 1936, SAF and LO "self-administer" practically all aspects of labour relations and labour standards. (A similar agreement exists between SAF and TCO.)\* The basic agreement has become the precedent for co-operation between unions and employers. Such co-operation has been institutionalized through the establishment of joint councils to examine areas of mutual concern. One such body, to be discussed in greater detail later, is the Joint Vocational Training Council. Also, because of the prominence of trade union and employer confederations, their representatives are found on many public agencies. The important Labour Market Board (Arbetsmarknadsstyrelsen or AMS), which supervises the active manpower policy, is completely tripartite in composition with joint union-management-government committees at all levels of decision-making.

The third factor shaping Swedish manpower policy is a strong commitment to full employment. Full employment represents both a goal and a constraint in that its attainment allows little room for adjustment through traditional economic policy instruments. The Swedish position is that because "the stick of unemployment has been forbidden," the usual labour market mechanism for responding to monetary and fiscal stimulation – through changes in wage rates – is inherently inflationary. To counteract this inherent rigidity in a full employment economy, manpower policy instruments can be used to ensure that the labour market remains flexible. This approach is best expressed by Gösta Rehn and Erik Lundberg:

“A price must be paid to labour as an inducement to overcome the material and psychological costs of shifting occupations or places of work. But instead of

the expansion-hampering and inflationary method of changing wage differentials, more direct methods must be used. This must take the form of compensation to the individual worker who takes the trouble to make a change in his vocational life in conformity with the changes in the economy's need for labour. . . . This implies improved information and retaining facilities, cash payments to cover the costs of moving, subsistence during retraining etc.” \*

The orientation or emphasis of the Swedish training program is significantly different from that of the British and West German systems. The latter concentrate rather narrowly on the relationship between training and economic growth. The orientation emphasizes the productivity of manpower resources and demonstrates relatively less concern for the circumstances of the trainee. By contrast, the Swedish approach emphasizes a broader role for training. This perception sees training as a device to ensure overall labour market efficiency – balancing the supply and demand for labour, ameliorating the adverse consequences of technological and structural change and improving the employment opportunities of marginal economic groups. The Swedish orientation stresses the "full utilization" of manpower resources while de-emphasizing somewhat the "productivity" of those resources. It should be stressed that "full utilization" and "productivity" are not designed to be emotive terms. There is a degree of complementarity between the two orientations. Full utilization is difficult to obtain without some emphasis on improving labour productivity, while improvements in productivity should assist in balancing the demand and supply of labour. Nonetheless, the differing orientations of the training systems represent an important distinction which, as later sections will show, strongly influence other aspects of those systems.

## 2. The institutional framework

This section confines itself largely to a description of the legislative and administrative framework of each training system. It concentrates on the major institutions involved in the training process and relationships among those institutions.

\* Gösta Rehn and Erik Lundberg, "Employment and Welfare: Some Swedish Issues." *Industrial Relations*, Vol. 2, No. 2 (February, 1963), p. 6.

\* For a summary of the basic agreement see SAF-LO, *Promoting Mutual Interests on Sweden's Labour Market* (Stockholm: 1961).

a. *Britain*: The legislative frame-work for the present system of industrial training in the United Kingdom is the Industrial Training Act of 1964. The Act is an interesting attempt to fashion a workable compromise between government intervention and the sovereignty of the private sector in the training field. Although the state has legislated the overall structure of the system and retains some regulatory power, control of the training process, particularly on financial matters, is in the hands of the private sector. The Act has three main objectives:\*

- (1) to ensure an adequate supply of properly trained men and women at all levels of industry;
- (2) to secure an improvement in the quality and efficiency of industrial training; and
- (3) to share the cost of training more evenly among firms.

The administrative vehicle established by the Act is the Industry Training Board (ITB). Each industry, defined as a group of establishments engaged in a common production or service activity, is subject to one board. At present 29 boards have been established covering manufacturing, agriculture, finance, service and utilities industries. Each ITB is directed by a committee which includes an appointed chairman, an equal number of employer and union representatives and varying numbers of educators and officials from the Department of Employment (formerly the Ministry of Labour). However, only the chairman and the employer and union members have voting rights.

The duties of the board include:†

- (1) ensuring that sufficient training is provided;
- (2) publication of recommendations on such matters as the nature, content and length of training and associated further education for occupations in their industry.

The boards were not designed to be direct suppliers of training services but rather to co-ordinate training activity in each industry. To accomplish this, each board was given the right to impose a levy assess-

ment on each establishment in its jurisdiction,\* to use these funds for its own expenses and to give grants to member firms that undertake to supply training commensurate with the board's standards.

The levy-grant mechanism is the essential feature of the Industrial Training Act. It was designed to force firms to re-evaluate their training effort in response to the financial leverage possessed by the boards. Essentially the levy-grant is a carrot and stick mechanism. The levy is a private tax on firms to compel the entire industry to contribute toward the cost of training while the grant represents a reward to employers who undertake approved training. Through this mechanism it was expected that an industry's training costs would be more equitably distributed as non-training employers of skilled labour are forced to compensate those employers who do undertake training. In this way a training firm will suffer a smaller loss from subsequent turnover in trained personnel to non-training firms, and thus will be more favourably disposed to undertake further investment in training.

Both levy and grant policy have varied considerably depending on each board's evaluation of its industry's training requirements. With respect to the levy, most boards have opted for a fixed percentage of payroll scheme with exemptions for small firms. The original intention was to pitch the levy assessment to cover the industry's full training costs. Recently some boards have de-emphasized the full-cost criterion, arguing that if a firm is already undertaking adequate training it is meaningless to tax it and then hand back the money. Increasingly, the levy funds are viewed as "seed money" to stimulate new training ventures. Presently the magnitude of the levy assessment varies from a low of 0.04 per cent of payroll in some sections of the air transport industry, with the average in the 1-2 per cent range.†

Grant policy has taken on a myriad of forms. Aside from special assistance to encourage experimentation in training technique, the form of grant has varied from a straightforward cost-refund approach, based on employer's incurred costs, to a highly

\* Ministry of Labour, Industrial Training Act: General Guide – Scope and Objectives (revised, 1965), p. 5.

† Ibid., p. 8.

\* The firm has the right to appeal the levy, but only on the grounds that it is not a part of that industry or that the assessment has been inaccurately calculated. It cannot challenge the rate of levy. See *ibid.*, p. 10.

† See Department of Employment, Training for the Future (1972), Annex 3, pp. 66-69 for the levy policy of all Boards.



sophisticated rating system devised by the Engineering Board.\*

One additional agency was established by the Act, the Central Training Council (CTC) composed of representatives of government, business and labour. The CTC was intended to be an autonomous administrative body, but it was quickly down-graded to a purely consultative role, advising the Minister of Employment and undertaking research. It is also responsible for suggesting training standards for occupations, such as clerical work, that are common to a number of industries.

The training board system represents a considerable undertaking. The twenty-nine boards cover some 16 million workers out of a total labour force of 24.7 million. The financial impact of the system is also large. In fiscal 1971, total levy assessments exceeded £202 million of which £199 million was returned to firms in the form of grants.† The size and scope of the boards vary considerably. The largest, the Engineering ITB, covers 28,000 firms, 3.5 million workers and collects an annual levy (1971) of £91 million. One of the smallest boards, The Man-made Fibres Producing ITB, serves 40 firms, 47,000 employees and collects only £27,000 in levy.‡

b. West Germany: In theory the apprenticeship system in West Germany operates on the principle of "dual" responsibility. Employers, their associations and the federal government oversee the in-plant, practical aspects of training while the states (Länder – similar to Canadian provinces) provide the related theoretical instruction given in the part-time vocational schools (Berufsschulen). In practice, however, employers and their associations dominate the system both financially and administratively. They pay for the overhead costs of training (equipment, instructor's salaries, trainee allowances, etc.) and contribute financially to the operation of the Chambers to which all employers belong. The two Chambers, one for industry and commerce (Deutscher Industrie und Handelstag) and another for the

handicraft or artisan trades (Deutscher Handwerkskammertag) have been delegated the legal authority by the Minister of Economic Affairs to oversee and regulate the entire apprenticeship system. This authority allows the Chambers to define apprenticeable trades, approve indenture contracts and to test and certify journeymen. They also co-ordinate the overall training effort and occasionally underwrite special training projects. Both Chambers are organized regionally rather than by industry, with associations at the local, Land and federal levels. There appears to be a certain degree of local and regional autonomy within the structure of the Chambers and, as a consequence, considerable flexibility in responding to specific training requirements.

The Chambers, along with other employer associations, have also established their own vocational training research agency, the Office for Vocational Training in Undertakings (Arbeitsstelle für Betriebliche Berufsausbildung or ABB). The functions of this agency include defining training needs, devising curricula and aptitude requirements for occupations and recommending additions to, or deletions from, the official apprenticeable trades list. Until recently, the ABB has enjoyed *de facto* government recognition as the official training research agency.

The other aspect of the "dual" system is the related theoretical instruction offered in the Länder-operated, part-time vocational schools. Compulsory off-the-job instruction has a long tradition in Germany. Paid day-release for all apprentices (in fact for all working youth aged 15-19) has been mandatory since the 1920s.

The quality of instruction offered in the part-time vocational schools has come under increasing criticism from unions, the federal government and even some large employers. It is alleged that the schools are underfinanced and understaffed and that the instruction offered bears little relevance to associated on-the-job training. A recent (1970) Report of the Federal Government on Education\* largely confirms these criticisms. It notes wide discrepancies among the Länder in the average number of hours of related instruction given to apprentices. A significant percentage of apprentices receives less than the statutory eight-hour weekly minimum. The report

\* The Engineering ITB has a grant system by which a firm receives a grant expressed as a percentage of its levy. The percentage is based on a quantity factor reflecting the firm's use of skilled manpower, and a quality factor representing the increased productivity of the trainees. These two indices are multiplied together to give an overall performance rating and this, in turn, is multiplied by the levy assessment to give the amount of grant.

† Department of Employment, Training for the Future, Annex 3, p. 70.

‡ Ibid., Annex 3, p. 66-69.

\* Der Bundesminister für Bildung und Wissenschaft, Report of the Federal Government on Education 1970, p. 80.



concedes that "the theoretical part of training in the dual system, as is available today, is no longer adequate."\* Both the tone of the Report and a recent constitutional amendment, giving the national government "explicit competence"† in the field of education, suggest a more aggressive federal role in this area.

Reform of the apprenticeship system is also implicitly suggested by the passage in 1969 of two pieces of legislation, the Employment Promotion Act and the Vocational Training Act. Unfortunately, information on the effects of this legislation has not been available, so only rather insubstantial inferences can be drawn.

The Employment Promotion Act is an attempt to bring large sections of labour market policy under centralized direction. Under its terms, the former Federal Institute for Labour Placement and Unemployment Insurance has been given a new title – The Federal Employment Office (Bundesanstalt für Arbeit or BA) – and vastly expanded functions. Of particular interest, because of its potential influence on the selection of trainees, is the BA's monopoly on guidance and placement services. The Act states that "save as provided to the contrary . . . vocational guidance and placement in vacancies for training or employment shall be carried on only by the federal institution."‡ (Our emphasis.)

Secondly, the Act empowers the Employment Office to provide financial assistance, in the form of grants or interest-free loans, to persons wishing to undertake training.§ In this "individual incentives" program, the magnitude of the grant is related to the trainee's expected income during training and is adjusted to cover personal or family maintenance, transportation costs and other non-deferrable expenses. The Employment Office can also offer financial assistance to firms, industry co-operative schemes and other public and private institutions engaging in training. This assistance is predicated on an unspecified but commensurate financial involvement on the part of the beneficiary. During 1970, overall financial assistance amounted to approximately \$227 million with grants or loans being disbursed to about 190,000 trainees.\*\* The interesting feature of this program is that the assist-

ance is not in the nature of a public subsidy. The source of the Employment Office's expenditures is the employer and employee contributions to the Social Insurance Fund. While similar to our unemployment insurance fund, the German variant covers many more aspects of employment security including unemployment and pension benefits, sickness and accident insurance, as well as grants for training.

The Vocational Training Act represents a political compromise to a long and acrimonious debate among the employers, unions, government officials and educators over control of the training system. The focus of the debate concerned the uncertain status of the Chambers. Because their delegated authority had become entrenched over the years it was questioned whether they could still be considered as agencies of the public policy. The unions, hitherto denied a role in the training area, were highly critical of the stewardship of the Chambers. They proposed that new legislation should, among other things:

- (1) remove the responsibility for vocational training from the Chambers and bring it under public administration; and
- (2) have the cost of investment in training borne by society as a whole.\*

The employers countered by insisting that the existing scheme was the best way in which young people could acquire an industrial education and that excessive government involvement would destroy the flexibility of the privately administered system.†

Although most aspects of the Vocational Training Act are relatively innocuous, two features of the legislation are very contentious. First, the Act gives explicit endorsement to a method of training known as "training-by-stages"‡ (somewhat similar to modular training in Canada). Under this method the first

\* G. Benz, "Vocational Training – the Demands and Suggestions of the German Union of Metal Workers" (translation). *Berufliche Bildung* (Düsseldorf: Aig, 1968); in CIRF i/1/B25485, p. 3.

† See *Deutscher Industrie- und Handelstag* et al. Statement by four employer groups with regard to issue 7/8 of the recommendations of the National Committee on Education (translation) (Bonn/Köln: 1965); CIRF 5/1/B6709, pp. 2-3.

‡ Federal Republic of Germany, Vocational Training Act, (August 14, 1969), ILO Legislative Series 1969, Section 26, p. 9.

\* Ibid., p. 87.

† Ibid., p. 218.

‡ Federal Republic of Germany, Employment Promotion Act, (June 25, 1969), ILO Legislative Series 1969, Section 4.

§ Ibid., Sections 40-49, p. 15-18.

\*\* Reported in Department of Employment, Training for the Future, Annex 2, p. 62.

year of instruction is broadened to make it common to many related occupations. This is followed in succeeding years by blocks of increasingly specialized instruction. The distinctive feature of training-by-stages is that trainees are allowed to exit from the process at any stage and receive certification for the skills obtained. Further discussion of the impact of training-by-stages will be deferred to the section on training technique. But the point to be stressed is that the "stages approach" is an extremely flexible method of training introduced into a very rigid apprenticeship system.

The second and curious feature of the Act is, that what it gives to the Chambers with one hand, it appears to take away with the other. Although the competence of the employer organizations to regulate apprenticeship is confirmed, the Act has created another institutional structure which parallels and overlaps the Chambers. Committees for Vocational Training, comprised of representatives of employers, unions, government, the Employment Office and vocational teachers' organizations have been established at all three levels of government. These committees are to advise either the federal or Land government on questions relating to vocational training. However, their other duties appear to conflict with the functions of the Chambers. These duties include:\*

- (1) expanding facilities for training officers;
- (2) evolving principles for the establishment and supervision of training premises;
- (3) drafting proposals for the organization, expansion and encouragement of vocational training; and
- (4) encouraging co-operation between in-plant, school-based and inter-works training schemes.

To further complicate matters, the Act establishes a new research agency, the Federal Vocational Training Institute, which is directly responsible to the government. This agency is to "clarify the principles on which vocational training is based, determine the subject matter of vocational training and adapt it to technical, economic and social development."<sup>†</sup> Although employers' organizations, along with union and teacher representatives, are members of the Institute, the role in which the agency is cast appears to clash directly with the functions of the ABB.

The symmetry of this "administrative parallelism" is too forceful to be entirely coincidental. It appears to be an "end-run" by the government – an effort to reduce the authority of the Chambers while avoiding a direct confrontation with them. It is still too early to assess the effect of this stratagem except to suggest that the immediate future of vocational training in West Germany is likely to be in transition.

c. Sweden: The distinguishing administrative feature of Swedish manpower policy is the extent to which authority is centred in a single agency, the Labour Market Board (AMS). The AMS and its 25 County Labour Boards, acting alone or in concert with other agencies, control or supervise all programs concerning the supply and demand for labour, and their interaction. AMS programs, to influence the supply of labour, include administration of immigration quotas, operation of sheltered workshops for the handicapped, issuance of relocation and retraining allowances, and in partnership with the Central Board of Education (Skolöverstyrelsen or SÖ), the operation of an extensive network of retraining facilities.

In its role of balancing labour demand and supply, the AMS, through the county boards, operates the Employment Service. This institution enjoys a monopoly position, with respect to the unemployed and to applicants for retraining, since both groups must register at the service to receive benefits or training allowances. To further facilitate this matching function, the board, through an agreement with employer groups, operates a comprehensive notice of termination program and a job vacancy survey.

Unlike similar agencies in other countries, the board has considerable influence on the demand for labour. It funds public works projects and largely determines industrial location policy through its control of subsidies for, among other things, the training of local unemployed labour. In concert with other agencies, the board influences defence expenditure, residential home construction and the uses of the investment reserve funds.\*

\* The investment reserve funds are a somewhat novel feature. Each firm is required to set aside some portion of its pre-tax profits in a fund administered by the AMS and the central bank.

For this it receives certain tax concessions. However, during a five-year period, the funds can only be released for purposes approved by the AMS.

\* Ibid., Section 51(1), p. 17.

† Ibid., Sections 60-72, pp. 21-22.



The Labour Market Board is obviously an extremely powerful agency. At a minimum, its mandate covers functions that in Canada are divided among at least four federal departments (Manpower & Immigration, Labour, Regional Economic Expansion, and Urban Affairs and Housing) and all the provincial Departments of Labour. Three organizational features of the board buttress its unique position. First, although nominally subordinate to the Ministry of Interior, the AMS is for all practical purposes, an autonomous agency. It has a large budget which, for many functions (particularly retraining and public works), is open-ended in that the annual appropriation can be increased at the discretion of the board.

Secondly, the structure of the AMS assures close co-operation from the private sector. The management of the board is completely tripartite – joint union, employer, government decision-making at all levels. For example, the governing board of AMS includes five government appointees, three representatives from SAF, three from LO, two from TCO and one from the Confederation of Professional Associations (SACO).<sup>\*</sup> County administration is similarly structured with employer and employee representatives on each county board.

Thirdly, efficiency and flexibility within the labour market administration are facilitated by an internal decentralization of authority. In addition to their operation of local employment offices and public works projects, the County Boards are responsible for working out detailed “normal” and “emergency” plans and projecting local requirements and resources. These plans are integrated by the central board and adjusted in light of national projections.

The “training for labour market reasons” program is an integral component of the active manpower policy. The emphasis on retraining has increased dramatically since the 1967-68 recession. In 1966-67, 48,500 persons entered the program. In

1970-71, the figure was 105,000. An additional increase of 15,000 is projected for 1972-73.<sup>\*</sup> These latter figures are in excess of stated government policy which is to retrain 2 per cent of the labour force annually.

Responsibility for the retraining program is shared by the labour market administration and the education authority – the Central Board of Education (SÖ) and its county boards. The AMS decides on the volume of training to be undertaken, its geographic distribution and the occupations in which instruction is to be given. The board also issues training allowances and provides the subsidies to firms in which training is given in accordance with the rules of the program. However, the AMS does not itself undertake training. Instead, it requests various agencies, principally the Board of Education, to establish and operate the training programs.

The Board of Education (SÖ) is responsible for all education, excepting university level. It is similar to the AMS in its administrative structure and its degree of autonomy. With respect to the retraining program the SÖ has two functions. First, it supervises the curricula and instruction methods for training undertaken in firms or private institutes. Secondly, it is responsible for the staff, premises, curricula and equipment in the regular vocational schools and the special adult retraining centres in which about 75 per cent of the retrainees are enrolled.

Liaison between AMS and SÖ is maintained by a variety of devices. The costs of the retraining program are covered by a joint appropriation, and both agencies have discretionary authority to alter the amount. At the national level, co-operation is achieved through a Central Co-ordinating Committee which also includes representatives from the unions and employers. Similarly structured “course boards” co-ordinate the activities of the County Boards of Labour and Education.

The Joint Vocational Training Council, the private agency established by the employer and employee organizations, exercises an important support role in the training process. Its functions include:<sup>†</sup>

<sup>\*</sup> AMS, *Foreign Reader Service*, The Swedish Labour Market Administration (January, 1967), p. 5.

<sup>\*</sup> Data for 1966-67 OECD, *Manpower and Social Affairs Directorate*, Retraining of Adults in Sweden, MS/M313 287-E (Paris: December 1968), p. 6. Data for 1970/71 and 1972/73: AMS, *Budget Proposal for the Fiscal Year 1970/71, long-term budget*, p. 3.

<sup>†</sup> SAF-LO, *Promoting Mutual Interests*, pp. 17-18.

- (1) investigation into the training requirements of the private sector and the institution of measures to increase its volume and efficiency;
- (2) maintaining contact with the work of the authorities;
- (3) supervision and co-ordination of the activities of the vocational panels (joint union-management committees established in firms in which training takes place).

The council has undertaken research into such areas as the training problems of women and of small industrial sectors. More recently it has begun to offer instructor training courses. Under the aegis of the council, research institutes have been established in a number of industries. One such institute in the metal industry, SWEMETAL\*, is extremely active in curricula development. Its syllabi are widely used both in the private sector and the public training programs.

The objectives pursued by the "training for labour market reasons" program are more ambitious and varied than those for similar programs in other countries.

The most intriguing objective of the retraining program is its use in counteracting seasonal and cyclical fluctuations in employment. Basically the program functions like a sponge, removing labour from the market and placing it in training during periods of recession, and releasing labour with improved skills during periods of economic expansion. There is considerable debate among economists as to the efficacy of this approach.† However, in a technical sense at least, the program appears quite successful in that the volume of training activity closely follows cyclical and seasonal swings in unemployment.‡ The second goal is to increase the labour force participation of marginal economic

groups such as housewives, the handicapped and older workers. Support services for these groups have been considerably expanded. In the field of retraining, the criteria for receiving financial support (previously confined to the unemployed) has been loosened to include these groups. For women, the board has attempted not only to encourage their entry into the retraining program but has also encouraged private industry to hire and train women and to remove sex-based occupational distinctions. The results, on the whole, have been encouraging.

In 1969-70 women accounted for 39 per cent of all retrainees in the AMS-SÖ program.\* Similarly about one-third of the program's trainees are classified as handicapped† (although the definition of handicapped is somewhat elastic, including for example, social handicaps). For older workers, the program exhibits considerable tolerance in enrolling them both in the formal education system and the retraining centres. Courses of study have been expanded to include basic education subjects such as mathematics, civics and Swedish. The enrolment of older workers, while not dramatic, has been substantial. In 1967 for example, 15.8 per cent of all trainees were aged 45 and above.‡

The program also attempts to adjust for the effect on labour of technological and structural change. This objective is expressed from two perspectives. First, technological advance requires, as a concomitant, a reserve of highly skilled and mobile manpower. Recent board policy has emphasized the elimination of skill bottlenecks through special training "for shortage occupations." The second interaction of manpower policy and economic rationalization concerns the necessity of ameliorating the undesirable effects of such changes. The Swedish position is that technological and structural improvement will be implemented more rapidly if those adversely affected by such changes receive a commitment of assistance from society for necessary adjustment. This commitment is expressed through the right to advance notice of unemployment-inducing changes in production technique, and the right to free retraining or other assistance for those so affected.

\* For more information on the activities of SWEMETAL see Australian Tripartite Mission, *The Training of Skilled Workers in Europe* (Tasmania: T. J. Hughes, 1969), pp. 283, 451-61.

† See, for example, C. C. Hott et al., *The Unemployment-Inflation Dilemma: A Manpower Solution*, (Washington, D.C.: Urban Institute, 1971); Keith Newton, "A Countercyclical Training Program for Canada?" *Industrial Relations Quarterly Review*, Vol. 26, No. 4, pp. 865-89; Paul Sultan, *Retraining Programs as a Remedy for Cyclical Unemployment* (Review and Assessment Committee, unpublished). Department of Manpower and Immigration, Ottawa, 1970.

‡ See diagram No. 1 in McIlveen, *The Vocational Training System in Sweden*, p. 36.

\* K. A. Lindkvist, "The Importance of Vocational Training Activity for the Realisation of Employment Market Policy," (translation, *Facklararen*, Vol. 17, No. 16 August, 1969); in CIRF 9/2/B32123, p. 4.

† AMS, Budget Proposal for the Fiscal Year 1970/71, p. 24.

‡ OECD, *Retraining of Adults in Sweden*, p. 6.



The Swedish authorities have also combined the training program with industrial location, particularly in the chronically depressed northern counties. As part of an effort to attract industry to the area, firms are heavily subsidized to provide retraining for local unemployed labour for future employment. Few details are available on the results of this approach. The board reports that between 1963 and 1966, 10,000 individuals were trained under the auspices of the industrial location policy.\*

Recently, however, the question has been raised as to whether the northern counties possess an economic infrastructure sufficient to support the scattered industrial development.†

### 3. Trainee Selection and Financial Assistance

Earlier we noted that industrial training systems have two distinct orientations. The productivity approach, followed by the British and West German systems, emphasizes the link between industrial training and economic growth. The Swedish "full utilization" orientation stresses the value of training in promoting overall labour market efficiency.

The orientation of a training system largely defines the population group who will receive training. A "productivity" emphasis implies a considerable "creaming" of prospective trainee applications. In order to maximize the return on training investment, applicants are selected according to whether they possess characteristics conducive to high returns – good health and employment records, educational levels, etc. In the British system, the choice of the "best" applicants is reinforced by the levy-grant mechanism. The training firm is less concerned about the post-training mobility of the "advantaged" worker since its investment in training is already secured by the availability of a grant. Because the board system's selection criteria are biased towards the "advantaged" worker, the board is deliberately ill-equipped to assist the unemployed, the marginal labour force participant or the worker threatened by redundancy. As one knowledgeable advocate of the system put it:

\* Björn von Heland, *Industrial Location Policy in Sweden* (Stockholm: AMS, March, 1967), p. 1.

† Eli Ginzberg, "Sweden's Manpower Policies: A Look at the Leader." *Manpower*, Vol. 2, No. 11 (November 1970), p. 27.

"the concept of training as a means of rehabilitating redundant workers is opposed to the ITB job-oriented concept since it is worker-oriented and could have a large welfare or do-goodist element in it."\*

The German system, because of its emphasis on productivity is also biased toward the selection of the "best" applicants. However, recent developments have created some ambiguity concerning who makes the selection. The monopoly enjoyed by the Federal Employment Office in matters of trainee placement and vocational guidance limits the population from which employers can make their selection. Although it is questionable what weight should be placed on it, there is some circumstantial evidence that the Employment Office's placement criteria tend to be more flexible than those of an employer. For example, the Employment Promotion Act states that:

"The Federal Institution (BA) shall endeavour to ensure that jobseekers obtain employment and employers the necessary labour. In so doing, it shall have regard for the special conditions attaching to vacancies, and for the aptitudes and personal circumstances of jobseekers."†

Because of its commitment to overall labour market efficiency, the Swedish program tends to be worker oriented. Trainees are chosen from a sub-stratum of the population that is less advantaged. This is not to say that selection is confined to the disadvantaged and minority groups as is, for example, the American system. But the Swedish approach does de-emphasize the potential productivity of prospective trainees while placing proportionately greater emphasis on solving the employment difficulties of peripheral manpower resources. This emphasis is evident in the eligibility criteria for recipients of training allowances. According to the 1968 Labour Market Ordinance, an applicant, to receive an allowance, must:‡

- (1) be unemployed, in danger of becoming unemployed, or have met with placement difficulties;
- (2) be at least twenty-one years of age and have applied for work through a public employment office;

\* John Wellens, "Two Million Pound Shot in the Arm for Adult Training." *Industrial Training International*, Vol. 1 (December 1966), pp. 376-77.

† Employment Promotion Act, Section 14(I), p. 7.

‡ Labour Market Ordinance (SFS 1968:246), Clauses 15-16; from MS Reprint, p. 3.

(3) apply for training which will facilitate employment which is not deemed possible without such instruction.

In practice, these relatively broad criteria are even more liberally interpreted. For example, the age requirement is not strictly enforced. Exceptions are made for young people from the northern counties, for single mothers and for teenagers with previous employment experience. Secondly, in an effort to utilize all manpower resources the term "unemployment" has been "suitably enlarged".\* Married women wishing to return to the labour force, the handicapped and older persons are classified either as unemployed or under the catch-all "have met with employment difficulties." Thirdly, any group of workers in danger of redundancy is automatically offered retraining. Finally, some applicants who do not meet the criteria can be channelled in specifically designated "shortage occupations" and thus receive training allowances.

Having selected the trainees, there remains the question of whether to provide them with financial assistance during the instruction period. As has been noted, two of the systems – the Swedish and the German – do make provision for such assistance, while the British, with minor exceptions, does not. The decision on whether the government should involve itself in this activity depends on its perception of the market for training services.

Both individuals and firms can be seen as investors in human capital formation through training. Employers invest in training in the expectations of receiving higher output (or reduced production costs) through the application of newly learned skills. An individual may also invest in his own training or education, thereby incurring expenditure and/or foregoing earnings, in the expectation of obtaining a higher income in the future. If the market for training services were perfectly competitive we would expect the firm and the individual to invest in training up to the point where the expected return was equal to additional costs incurred.

A major difficulty in assuming perfect competition in the market for training services is that investment

in human capital has different restrictions than investment in physical capital. The individual, in most societies, does not have equal access to loanable funds to finance an investment in training. The firm can pledge physical assets as collateral for loans. The individual, on the other hand, is constrained by law\* and by the reluctance of the loan market from pledging his most important asset – the future stream of income from his own effort – as collateral for loans to finance training investment. Further, if the prospective trainee is young or in some way disadvantaged, he will have fewer alternative income-generating assets on which to draw for non-deferrable expenses during the instruction period. The cumulative effect of these factors is the reduction of the potential trainee's disposable property rights. This, in turn, introduces a distortion into the allocative mechanism of the competitive market, such that individuals will demand less training than they would if human assets were accepted at par with non-human assets. Since this distortion has the approval of both society and the law, the government (acting for society) should remove the undesirable side effects of such approbation. This can be accomplished by having the government guarantee financial assistance to individuals wishing to undertake training.

Both the German and Swedish systems accept the provision of trainee financial assistance as a legitimate function of government. Under the "individual incentives" program in Germany, the Employment Office is empowered to:

“ grant subsidies and loans to young people and adults to enable them to receive appropriate vocational training . . . preparing them for an occupation insofar as they cannot raise the money themselves and the persons responsible for their maintenance cannot reasonably be expected to raise the money by normal means. ” †

The provision of assistance in the German system is not dependent on the employment status of the trainee. This constitutes the major difference from the Swedish approach, which concentrates almost exclusively on the unemployed worker and the marginal labour force participant. These groups, almost by definition, are the least able to devote resources to skill acquisition. As a result, the

\* Bertil Olsson, *Active Manpower Policy in Sweden*, AMS, Foreign Reader Service (Stockholm: 1966), p. 6.

\* The reference is to post-training indenture not to contractual arrangements during training, i.e., an apprenticeship indenture.

† Employment Promotion Act, Section 40, p. 15.



financial assistance offered to prospective trainees by the Labour Market Board is more tailored to individual requirements.\* Assistance is provided monthly in the form of a basic allowance, plus special allowances for trainees living away from home, a rent allowance, as well as supplements for a non-working spouse, for children and for instructional materials. Allowances are adjusted to local cost of living indices. To create an incentive to enter training, the total assistance is tailored to fall between average employment earnings and unemployment insurance benefits. The board has recently experimented with special bonus allowances for applicants undertaking training in "shortage occupations."

The British system provides only minimal financial assistance for trainees and then only to those enrolled in the small government-operated training program. The argument seems to be that, since the board system concentrates on the employed worker, then all trainees are receiving some earnings. Furthermore, the system has adopted a rather curious economic proposition (to be discussed in section 5) that employers should pay all the costs of training. However, these arguments fail to recognize that the trainee may still have difficulty in gaining access to loanable funds to cover his expenses during instruction. If this is an important consideration to trainees it would suggest that investment in some forms of training is still less than optimal. The failure of the system to generate this form of financial assistance has been severely criticized. Two observers, Dennis Lees and Brian Chiplin, declared that the provision of financing for trainees is the one truly legitimate role for public intervention in the training process and criticized the government and the boards for failing to accept it.†

The government, in its recent plan to modify the training board system, appears to have come around to an acceptance of this view. In *Training for the Future* it is proposed that:

"people who are accepted for the courses will have the cost of their retraining met by the National Training Agency. They will also receive allowances during training – the level of these allowances must be sufficient to put a person who is unemployed in a better

financial position when undergoing training than he would be simply drawing unemployment benefit. . . . It must also be such that it is possible for a mature worker to give up his job and maintain his family during the period of retraining."\*

#### 4. Training Technique – Institutional versus On-the-job Instruction

The training systems differ appreciably in the methods of instruction they employ. In West Germany, apprenticeship supplemented by part-time, off-the-job instruction is the pervasive mode of training. In Sweden most training is undertaken within an institutional framework. The British system employs a combination of informal apprenticeship, short-term training on-the-job and institutional instruction.

The comprehensiveness of apprenticeship in West Germany is characteristic of that system. Not only does apprenticeship cover most sectors of the economy, it also retains a highly formalized relationship between employer and trainee which would be considered anachronistic here. For example, each indenture is defined by a binding contract which stipulates, in considerable detail, the duties of the signatories, the training curriculum, trainee allowances and the legal penalties for non-compliance.

One of the more intriguing questions is why apprenticeship has retained its vitality as a form of training in Germany as compared to its limited use in other countries. A number of economic reasons can be advanced to answer the question. But they lack "Germanness" in the sense that they would be equally applicable to other jurisdictions. What remains is a sociological explanation of the phenomenon. It was earlier noted that German employers view apprenticeship as a vehicle not only for skill acquisition but also for ensuring the personal and social development of the trainee. This attitude might be viewed with some scepticism except that it recurs frequently in the literature on the system. The attitude of German employers is difficult to explain except by reference to a unique "national character." One close observer, Frederic Meyers, does so after an apology for invoking the concept. He writes:

\* See the schema presented in OECD, *Retraining of Adults in Sweden*, p. 17.

† Dennis Lees and Brian Chiplin, "The Economics of of Industrial Training." *Lloyds Bank Review* (April, 1970), p. 33.

\* *Department of Employment, Training for the Future*, p. 36.

“... the apprenticeship system, as it is organized in Germany, strikes a less strange note than it might in other countries. Its high degree of organization and at least superficial order, its basis in structured patterns of authority, its emphasis on the inculcation of enduring moral values as well as skills; all these are consistent with the foreign view of German culture. The foreigner, or at least this foreigner, perceives a mystique among German managers which distinguishes them from their counterparts elsewhere.” \*

There is one sign that the rigidity of the apprenticeship system may be loosened in the future. This is evident from recent efforts in various quarters to promote the use of “training-by-stages.” The pedagogical aspects of training-by-stages have been widely discussed and applauded.<sup>†</sup> But the most important consequence of a widespread adoption of the method may be of an economic nature. The common instruction in the first year of training implies greater pressures toward inter-occupational mobility. Further, training-by-stages allows for numerous differentiated skill levels since trainees can exit the process at any point and receive certification for the skills acquired. In order to accommodate these developments, the rigid legal and institutional structure surrounding apprenticeship will have to be altered. For example, instead of the “skilled-unskilled” distinction in the present wage payment system, a variable payment structure reflecting the many variations in skill level may be instituted.

Vocational training in Sweden operates primarily within the school system or in quasi-educational institutions. However, within this framework there exists a wide variety of organizational forms. In the pre-employment training system also operated by the Board of Education (as part of the secondary-school system), three types of vocational institution are found.<sup>‡</sup> The first and most common form is the workshop school. All training, both theoretical and practical, is undertaken on the premises. Most workshop schools are established in municipalities under the supervision of local school boards. However, the Board of Education (SÖ) directly operates

a number of hostel-schools in sparsely populated regions. A second variant is the built-in or integrated school. To complement their students’ theoretical instruction, school authorities can contract with a firm for the latter to supply on-the-job training facilities. For its part, the firm receives a subsidy from the SÖ. An interesting aspect of this arrangement is that the students remain under the supervision of the school authorities at all times, instructors often doubling as trainee foremen. A more recent development has seen large industrial enterprises establish their own schools. These “firm” schools are accredited and subsidized by the SÖ although the trainees are considered as employees of the firm. Trainee wages and working conditions are regulated by collective agreement.

In the “training for labour market reasons” program three institutional arrangements are found:

(1) Retraining Centres – The core of the retraining effort is comprised of about 300 course selections offered in special retraining centres operated by the SÖ. There are 50 permanent centres and approximately 110 “temporary” facilities. The centres offer instruction in a wide variety of occupational fields. The length of instruction varies considerably – from four weeks for pre-vocational orientation courses to two years for subjects with a high skill component. A further feature of the centres is that although each tends to serve a specific region, all courses are open to inter-area recruitment. Utilization of training capacity is not hampered by administrative boundaries.

(2) Vocational Schools and Private Institutions – If neither courses nor space are available at the centres, the Labour Market Board (AMS) may refer trainees to the vocational institutions of the secondary school system. In this case, the applicant must not only satisfy the eligibility conditions of the retraining program, but must also compete for admission on the basis of school requirements. Instruction follows curricula in force at the school, and training allowances are paid to the student during the instruction period. The AMS may also request other private and public agencies to supply training in specialized areas. The National Board of Private Forestry, the National Board of Agriculture and various trade associations offer such a service.

\* Meyers, *Training in European Enterprises*, p. 159.

† See for example, *Australian Tripartite Mission, Training of Skilled Workers*, pp. 175-79.

‡ For more information see *Tore Hessler, The Vocational School System in Sweden, Sweden Today* (Stockholm: Swedish Institute, 1967).



(3) Training within Industry – This is an approach which comprises a relatively small proportion of the public retraining program although private industry does undertake, on its own initiative, a considerable volume of upgrading training for its employees. Within the public program, training-in-industry is limited to three areas. First the AMS may hire unused training capacity from an enterprise with an established training program. Secondly, firms willing to train handicapped persons, or older workers, for subsequent employment can receive a subsidy towards training costs. The largest role for training-in-industry is connected with industrial location policy. Enterprises which establish themselves in designated “development” areas are eligible for grants toward the costs of training unemployed local labour for employment in the firm.\*

The reliance on institutional training is consistent with the labour market efficiency orientation of the program. Specifically, the institutional base is necessary because the pursuit of contracyclical and contraseasonal objectives places a financial burden on the system that would be intolerable if training were offered only in the private sector. In order to anticipate increases in unemployment, the program must operate on the basis of continuous excess capacity. Extra space and equipment must always be available to expand the training effort. Data supplied to the Organization for Economic Co-operation and Development (OECD) by the Swedish authorities show that even during peak training periods about 1,000 additional training spaces are maintained in the centres.\*\* This figure refers only to spaces immediately available. The effort can be expanded considerably by invoking the “emergency” plans.

\*Distribution of trainees among various institutions  
1968-69

	Number of trainees	Percentage of total
Retraining Centres	41,044	44.7
Training-in-industry	11,816	12.9
Courses in the Vocational Schools	24,458	26.6
Other Courses (Agriculture, Forestry, etc.)	14,541	15.8
Total	91,859	100.0
Total Female	38,832	39.0

Source: K. A. Lindkvist. “The Importance of Vocational Training Activity for the Realisation of Employment Market Policy” (translation). *Fackklaren*, Vol. 17, No. 16, (August 1969); in CIRF 9/2/B32124, p. 4.

Secondly, Swedish officials argue that it is only through an institutional framework that the most applauded feature of the program, its administrative flexibility, can be maintained. It is argued that certain techniques used to facilitate flexibility are practicable only in an institutional environment. The most important of these features is staggered or continuous enrolment in the courses. About 70 per cent of the courses at the centres operate in this fashion.† The subject matter is compartmentalized so that the trainee can complete a series of projects with minimal guidance. Swedish officials argue that continuous enrolment has the advantages of being immediately responsive to fluctuations in unemployment and of reducing welfare and unemployment payments to trainees while they wait for a course to begin. In addition, staggered entrance results in staggered exit, so that trained jobseekers reach the market in a manageable flow rather than en masse. A second technique is the use of shifts. One group of trainees engages in shop work while another class receives associated theoretical instruction, thereby doubling training capacity. Other devices include a continuous national inventory on the location and operational status of training equipment and the central hiring of instructors. Unused equipment, and to a lesser extent, teaching staff, can be shifted to areas of need. Swedish officials claim that the system is so finely tuned that, if a curriculum is available, a new course can be completely operational within a week; without a curriculum, in about a month.‡

British training methods used to be referred to rather derisively as “sitting by Nellie,” meaning that skills were acquired by watching and imitating co-workers. Even with the improvements instituted by the boards, the British approach can most charitably be described as informal. For example, although apprenticeship is common in Britain, most indentures are only oral agreements between employer and trainee.§ Even estimates on the number of apprentices vary widely.

\*\* OECD, *Retraining of Adults in Sweden*, p. 6.

† Ibid., p. 13.

‡ Reported in OECD, *Manpower and Social Affairs Directorate*, Reports by the Consultants After Their Visit to Sweden – Dr. C. Aller, United States. MS/M/313/288-F. (Paris: January 1969), p. 14.

§ There are about 100 trades in which apprenticeships are usual in Britain, though the scope of coverage is much smaller than in Germany. See Meyers, *Training in European Enterprises*, p. 47.

Complementary, off-the-job instruction, although fairly common practice, is not enforced through legislative provision. Where it occurs, it is usually the result of collective agreement provisions. Aside from the very small role of the Government Training Centres (16,650 trainees in 1970 as compared to about 1.6 million in the board system)\*, the government has not looked upon vocational education as a function to which the state should make a significant contribution.

The boards and the Central Training Council have made some improvements. In its 1967 report, the CTC insisted:

“that at least the whole of the first year’s training must be provided in special centres or schools or in technical colleges, away from the production process and under fully competent instructors.”†

Through their grant policy, the boards have shown particular favour to schemes that involve the provision of related theoretical instruction at public or private institutions (the board or the firm contracts to pay the educational facility for establishing a program). Many boards have encouraged “block” release or “sandwich” course schemes where, for example, four months of “in-plant” training is followed by four months of “off-the-job” instruction at a vocational institute.

However, the lack of an overall public vocational education program is still felt to be a serious drawback. In *Training for the Future* the government has suggested that the previously moribund training centres be expanded under a Training Opportunities Scheme (TOPS) with a target of offering institutional instruction to 100,000 persons. The range of courses to be offered will be widened, and the centres will “be seeking the co-operation of the education service in the new scheme in the provision both of education and of training.”‡

\* *Department of Employment, Training for the Future*, pp. 46 and 50 respectively.

† *Central Training Council, Second Report to the Minister of Labour* (resumé by D. C. McNeill) (April 15, 1967), p. 3.

‡ *Department of Employment, Training for the Future*, p. 46.

## 5. Financing the Training System

The three foreign systems examined here largely exhaust the number of ways that industrial training can be financed. The Swedish program operates almost exclusively on public subsidy while the West German system is almost entirely financed by the private sector. The British approach falls between these extremes in that a quasi-private agency, the board, has taxing and expenditure authority but only over the firms in one industry.

The fact that some governments invest heavily in training suggests that they believe the market is not operating in a socially optimal manner. The reasons for this non-optimal behaviour can be grouped in two categories: market distortions and spillover effects (or externalities).

A market distortion is any constraint on the market mechanism which prevents it from operating in a competitive manner. For practical purposes distortions are usually limited to man-made constraints such as institutional conditions, social mores or legal enactments. Unequal access to loanable funds (discussed in section 3), discrimination on the bases of race, sex, or class and institutional rules which inhibit the mobility of the worker are examples of the types of distortion that may affect the market for training services. Since most market distortions have the implicit or explicit approval of society, the government (acting for society) should alleviate their undesirable side effects.

The existence of externalities or spillover effects suggests that even the competitive market is not an optimal allocative mechanism from a social perspective. An externality is defined as a situation in which

“A person ‘A’ in the course of rendering some service for which payment is made to a second person ‘B’, incidentally, also renders services or disservices to other persons (not producers of like services) of such a sort that payment cannot be exacted from the benefited parties or compensation enforced on behalf of the injured parties.”\*

It is important to note that the third parties do not compensate the producers of the external benefits they receive (or in the case of external costs third parties cannot exact compensation). Either there exists no legal mechanism for achieving redress or

\* A. C. Pigou, *Economics of Welfare*, 4th edition (1948), p. 183.



the costs of conducting such a transaction are greater than the external benefit (or cost). Because of the existence of a spillover effect the private benefits or costs of undertaking a particular activity differ from social benefits or costs. Thus from society's viewpoint too much or too little of that activity is undertaken.

Spillover effects can be further categorized by the degree to which external costs or benefits are dispersed. A private externality occurs when an uncompensated benefit (or cost) accrues to identifiable third parties. A social externality occurs when an uncompensated benefit (or cost) accrues to identifiable third parties. A social externality is a benefit or cost conferred on society as a whole, or to large groups within society. The appropriate government response depends on whether the spillover is private or public. In the former instance the government should initiate some mechanism whereby the parties can be allowed (or coerced) to make compensation to each other. Since the cost of effecting such a mechanism is too high in the case of a social externality, the government should subsidize the creators of spillover benefits. The latter will then have the incentive to produce more of the product or activity.\*

Market distortions and spillover effects are crucial concepts in explaining the rationales underlying the financing of each training system. The British case is perhaps the most interesting. The third objective of the Industrial Training Act – to redistribute the cost of training more equitably – is not, strictly speaking, an objective at all. For it is through such a redistribution that the other objectives are met.

British authorities accept the proposition that industrial training creates significant positive spillovers. The White Paper, for example, stated that:

“A serious weakness in our present arrangements is that the amount and quality of industrial training are left to the unco-ordinated decisions of a large number of individual firms.”†

However the system concentrates almost exclusively on one type of externality – the “poaching” of

skilled workers by firms that do not train from those that do. The above quotation continues:

“These (firms) may lack the necessary economic incentive to invest in training people who, once trained, may leave them for other jobs. While the benefits of training are shared by all, the cost is borne by those firms which decide to undertake training themselves.”\*

The “poaching” argument can be stated more formally. Assume that there are two firms in the same industry and that each is deciding whether to undertake an investment in training. Firm A realizes that any worker it trains may be hired away by firm B. Thus A estimates that it will receive less return on such investment than if B's behaviour had no effect on the outcome. Firm B will go through the same analysis. Thus both have an incentive to provide less training than if their actions were mutually independent. This mutual dependence leads to a less than optimal supply of training services. A solution to the dilemma would be found if A could in some way extract compensation from B for the benefits it bestowed on the latter (or the reverse). Firm A would then undertake more training since losses due to “poaching” are neutralized, or both A and B would increase their training activities.

The levy-grant mechanism, although an imprecise device, is designed to effect this type of compensation. It forces the non-training firms (presumably the poachers) to supply funds to training firms (through the grant) and thus gives incentive to the latter to supply more training. In this way the private costs associated with poaching are presumably neutralized.

The levy-grant mechanism is the crucial feature of the British system and it appears to be justified by the “poaching” argument. Thus an evaluation of the system must first evaluate the importance of “poaching” as a constraint to the production of more training services. There are a number of empirical reservations to the notion of “poaching.” First, the Act implies that a trained worker who leaves one firm will automatically find employment in a similar position within the same industry. However, Lees and Chiplin note that about one-half of all job changes in Britain also involve a

\* It should be noted that externalities are primarily theoretical concept. In practice they are almost impossible to measure. Thus, any redistribution based on the concept must, of necessity, be very imprecise.

† Ministry of Labour, Industrial Training: Government Proposals, p. 3.

\* Ibid., p. 3-4.

change in occupation.\* Thus recruiting firms may not gain to the full extent by hiring workers with previously acquired skills. Secondly, there exists the question of the pay-back period – the length of time a firm must retain the employee to realize a return on its investment. The break-even point obviously varies with the type of occupation, but some studies have suggested that it occurs about two years after training.† “Poaching” that occurs after this point does not inflict a capital loss on the firm, only a diminution of gain.

There is also a serious theoretical reservation to the notion of “poaching.”‡ If a firm invests in specific training, poaching should not be much of a hindrance if only because the trainee has nowhere else to apply such skills. By implication, the incidence of poaching should increase as the training becomes more general. But since the generally trained worker has already paid for his own training (through lower present earnings), it is difficult to conceive of a situation in which one firm can poach skilled workers from another firm and involve the latter in a loss of training investment. If this analysis is correct and conditions approximate a competitive norm, then the use of the levy-grant to redistribute the costs between training and non-training firms lacks economic logic. Firms offering general training (paid for by the trainees) are not paying any costs themselves; hence any grant represents a net gain to them. If grants are given toward specific training, the firm also gains on an investment that is already profitable (in both cases, the levy has to be paid anyway, and therefore will not affect the economic evaluation).

The boards have begun to accept the validity of this criticism and thus retreat from an emphasis on the complete redistribution of training costs. In fact, government's new plan suggested that the levy-grant should be done away with:

“There is a danger that levy/grant might become an obstacle to the development of the boards' other activities. It needs to be phased out at a reasonably

early date. The government proposes to introduce legislation to relieve boards of the obligation to raise a levy.”\* †

The Swedish position, while accepting the outline of the externalities argument, differs from the British in several important respects. These differences have led to the conclusion that an industrial training program should be publicly financed.

Because of the manpower shortage there is a lively awareness of the poaching phenomenon among employers and officials. Rehn and Lundberg note that one reason that the competitive market does not supply an optimal volume of training is that:

“Employers who are interested in attracting additional manpower often undertake some of these measures. . . . However, because of the riskiness of the investment – employees recruited in this way are free to leave at any time – individual employers cannot be expected to adopt such measures to an extent that would satisfy all the economy's needs.” ‡

However, the poaching argument is only a departure point. Swedish economists strongly believe that the “fluid labour market of textbooks does not exist” and that the unregulated market yields less than socially optimal results. Rehn and Lundberg emphasize the necessity of state intervention to promote competition:

“The Swedish attitude to an effective full employment policy is very much based on a belief in the efficiency of a relatively free market system if this system is made to work under competitive conditions. But these conditions must be created through active economic policy measures, because they do not come about automatically.” ‡

The Swedish position is that public investment in retraining will lead to economic benefits that would not otherwise be obtained. Labour mobility and adaptability will be enhanced and this will lead to a

\* Lees and Chiplin, “The Economics of Industrial Training,” p. 39.

† See Adrian Ziderman, “Costs and Benefits of Adult Retraining in the United Kingdom.” *Economica*, Vol. 36 (November, 1969), p. 372.

‡ Follows argument presented by P. S. Johnson, “Industrial Training Boards in the UK-Model for Australia.” *The Journal of Industrial Relations (Australia)*, Vol. 14, No. 2 (June, 1972), pp. 108-09.

\* Department of Employment, Training for the Future, p. 46. The government, under some pressure, has retreated from this position. In a speech before Parliament, the Secretary of State for Employment, Maurice MacMillan, proposed that a minimum levy of one per cent should remain but it only be applied to non-training firms whose payroll is above the exemption limit. See Hansard, House of Commons (August 8, 1972) p. 1502, and the subsequent debate.

† Rehn and Lundberg, “Employment and Welfare,” p. 6.

‡ *Ibid.*, p. 4.



reduction of inflationary bottlenecks in production.\*

The rationales for financing in the West German system are something of an enigma. Superficially, the financial arrangement appears to be patterned on the notion of a competitive market for training services. Employers, by their expenditure on equipment and instructors' salaries and so forth, pay for the specific component of training while apprentices, by accepting lower present wages, finance their general instruction. However, a number of factors make it difficult to accept that the German market for training services approximates the competitive ideal. The control exercised by the chambers and the seeming rigidity of the apprenticeshipable trades' lists in particular, suggest a degree of monopoly power in this market. Furthermore, some enterprises, particularly larger ones, incur large expenditures to provide what appears to be very general training. Frederic Meyers, in his case studies of a number of large chemical and metal-fabricating enterprises, reported that they contract with each other to supply various facets of apprenticeship instruction.† The steel manufacturer, Krupp, has made a sizeable investment in its own variant of training-by-stages.‡ In Krupp's program the first three years of instruction are applicable to a wide range of related occupations. Siemens A.G., the large electrical engineering concern, spends about \$20 million annually on the training and further education of its employees. The purpose of this expenditure, in the words of the company's Head of Technical Education, is to "combat the ever-increasing, premature ageing of qualified staff" due to the rapid increase in knowledge.§

The behaviour of these large firms can be explained by the traditional distinction between general and specific training. The two varieties of training are not polar opposites if the employer has an interest in maintaining the skills of his work force. Since the enterprise is the only important source of training, an employee's thorough grounding in general skills

at the beginning of his career should make his subsequent (specific) retraining less costly. However, it is still difficult to explain why middle and smaller size firms also offer seemingly general training; and further, why, if such training yields significant social benefits, there is no request for public subsidy. The simplest answer is that employers already find it profitable to invest in training. But this begs the question of why it is profitable.

A tentative explanation can be offered if it is noted that the distinction between general and specific training, although a powerful analytic device, can be highly misleading. It implies that the two types of training can be separated by considering only the content of instruction. But the distinction really involves consideration of labour turnover – the ability of the successful trainee to move to new and/or different employment after training. It is only when competitive market conditions prevail (i.e., when workers are perfectly mobile) that the pedagogical and labour turnover definitions of general training are equivalent. However, if the post-training mobility of trainees can be inhibited by the establishment of artificial barriers, then the labour turnover version will predominate. An employer will be willing to offer training that, by content, appears very general if he is reasonably certain of retaining the services of his trained workers. In other words, artificial barriers to worker mobility convert general training into specific skills and as a consequence the employer is willing to invest in "general" instruction.

It remains to be shown that German employers have a better chance of retaining the services of their employees than do their counterparts in other countries. One indication is the notable absence of the terms "poaching" or "labour turnover" in the literature. Such considerations appear to have no discernible effect on the decisions of firms to offer training. More tangibly, a 1965 OECD study, *Wages and Labour Mobility* supplied data which suggest that German workers have a remarkable aversion to changing jobs.\* The study compared annual separation rates (separation per 100 jobs) for selected industries in the United States, Canada, France, the United Kingdom and West

\* AMS, Budget Proposal for the Fiscal Year 1970/71, p. 19.

† Meyers, *Training in European Enterprises*, Chapters 6-7.

‡ See Australian Tripartite Mission, *Training of Skilled Workers*, pp. 176-79.

§ E. Golling, *Continuing Training and Education in a Large Electrical Engineering Company (Siemens A.G.)*. Paper no. 2c, *International Conference on Continuing Training and Education During Working Life*, (Paris: OECD, 1970), p. 3.

\* OECD, *Wages and Labour Mobility* (Paris: July, 1965), Table 12, p. 51.

Germany. The West German separation rates, in all industries, were substantially lower than in the other countries. Admittedly, separation rates do not indicate the turnover propensities of trained workers. They do not differentiate between skilled and unskilled manpower nor do they indicate the occupational destination of the separated workers. But the data suggest that German employers enjoy a better than average probability of retaining the services of trained workers. This assertion is supported by some additional observations. In the first place German wage payment systems operate on the principle of relating the wage to certification of skill. A skilled worker (*Facharbeiter*) is defined as one who has completed an apprenticeship in the craft in which he is working.\* Hence a worker with a certificate in a craft other than that in which he is working, may work alongside, and at the same job, as another with the relevant papers, but he receives a lesser base rate of pay. Workmen's compensation legislation makes a distinction between inability to work resulting from accident or disease and inability to work in one's certified craft. The effect of this distinction is to give greater compensation to the worker injured while working in his certified craft than to one injured while working in some other craft.† Finally, many apprenticeable trades are common to both the industry and handicraft sectors. However, certificates in these overlapping trades are not accepted at par with each other. The handicraft certificate, or *Gesellenbrief*, is generally considered inferior to the *Facharbeiter-brief* of industry.

The impact of these constraints is to seriously inhibit the mobility of a skilled worker. One can infer that these constraints lead to some unpleasant consequences, specifically, a maldistribution of the training effort relative to the skill needs of the economy and a heavy penalty on a poor choice of occupation by the apprentice. However, the more formidable are these constraints on mobility, the greater is the probability that an employer realizes a large return on his training investment. Thus the greater is his incentive to finance what, by content, appears to be quite general training.

## 6. An Assessment

### a. The Industry Training Board System in the United Kingdom

The major objectives of the Industrial Training Act were to improve the quantity and quality of training. Although it is difficult to make an accurate assessment, it appears that the system has been only partly successful in attaining these goals. For example, in formal apprenticeship training, the number of young people entering such programs increased from 117,069 in 1963 to 134,675 in 1965, but has since fallen back to 120,702 in 1970.\* In non-apprenticeship training, there appears to have been a more substantial improvement between May 1964 and May 1968. In establishments of over eleven employees in the manufacturing industry, the number of workers who were undergoing some form of training rose from 83,080 to 126,070, or from 1.5 to 2.3 per cent of total employees.† Some boards have done much better. Figures from the Engineering ITB show that for this industry, the proportion of employees who had undergone some training rose from 22.7 per cent in 1966 to 32.6 per cent in 1969.‡

Improvements in the quality of training can be measured only by the increase in quality-influencing inputs to the training process. From this viewpoint significant improvement has occurred since 1964. For example, between 1966-67 and 1969-70, the number of training officers and instructors in the ceramic and glass industry rose by 57 per cent; in the mineral products industry by 300 per cent.§ In shipbuilding, the number of first-year apprentice craftsmen receiving off-the-job training increased from 38 to 79 per cent.\*\* Generally, the content and methodology of training seem to have improved in quality. Supplying information on recommended training standards and techniques has been the most consistently praised of the boards' activities.

\* *Department of Employment, Training for the Future, Annex 4, p. 73.*

† *Data presented by P. S. Johnson, "Industrial Training Boards," p. 165.*

‡ *Data from Engineering ITB, Report and Statement of Accounts for the Period Ended March 31, 1969, Table 3(b), and Ibid., for the period ended March 31, 1970, Table 3(a).*

§ *Ceramics, Glass and Mineral Products ITB, Report and Statement of Accounts for Year Ended 31/3/71, HC 479, Session 1970/71, p. 46.*

\*\* *Shipbuilding ITB, Report and Statement of Accounts for the Year Ended 31/3/71, Session 1970/71.*

\* Meyers, *Training in European Enterprises*, p. 38.

† *Ibid.*, p. 38.



However, the improvements in training volume and quality have taken place within a "technical" framework. The philosophy of the system seems to be "the more training (of the approved kind) the better." The fact that training is only one input to production tends to be ignored. Adjustments in the quantity or quality of other factors, to a given level of training, may produce more efficient results than increases in the supply of skilled workers. Thus the board system contains a basic defect – it does not have a "real" economic discipline built into it. The system compounds this inadequacy by creating a "false" financial incentive for employers. The levy-grant mechanism encourages employers to attempt to minimize their net levy (or maximize their net grant) by undertaking training programs regardless of the need for such training. So much energy is apparently expended in this exercise that the Confederation of British Industry felt compelled to admonish its members:

“ Training for training's sake – even in pursuit of grant – should be vigorously resisted, as well as the expenditure of energy on maximizing grant payments rather than on improving efficiency and profitability which is the true purpose of all training. ” \*

A second drawback of the system is that it does not supply a continuing financial stimulus to training. Suppose that the boards succeed in evening the costs, standards and volume of training in each industry; the levy-grant mechanism then becomes redundant. Each firm will pay its levy to the board who will then return exactly the same amount (less administrative expenses) to the same firm in the form of grant. The board ends up in the meaningless position of making bookkeeping entries showing equal payments from and to the same firms.

The logic of the system dictates that there will be a final upward shift in the volume of training. This is not a drawback in itself. But to further expand the quantity and quality of training being undertaken (or not to lose the ground already gained), the boards must further raise their levy assessment or go into debt. The recent government plan admits this dilemma:

“ Views differ . . . as to the need for continuing financial incentives to maintain the improvement that has

taken place. Some believe that without substantial levies the ground gained . . . would be lost. Others – and probably the majority – believe that general financial incentives, related to the training a firm undertakes for its own needs, are required only for a few years and that a permanent shift in attitude in British industry has been secured. ” \*

A third criticism of the system concerns its effect on small firms. The White Paper and the Act strongly implied that small firms in particular were not pulling their weight. They preferred not to train, but instead satisfied requirements for skilled manpower by poaching from larger firms. Thus the levy-grant mechanism was directed with considerable severity at the recalcitrant small firm.

However, in recent years it has been increasingly argued that small firms suffer disproportionately from the levy-grant arrangement. The outcry became so intense that the government commissioned an inquiry, the Bolton Committee† which supported the position of the small firms. It argued that:

(1) the administrative costs (in terms of paperwork etc.) weigh more heavily on the small firm;

(2) the small firm faces significant problems in training precisely because it is small. There are likely substantial economies of scale associated with training. To qualify for a grant, training must conform to standards set by the boards. The small firm is less likely to be able to organize a program that satisfies these requirements.

The various criticisms have found a meeting point in the contention that, under the Act, small firms are subsidizing large enterprises. The disadvantageous position of the small firms is shown in the following data from the Engineering ITB:

\* *Department of Employment, Training for the Future*, p. 13.

† *Report of the Committee of Inquiry on Small Firms*, Cmnd 4811 (HMSO: November, 1971).

\* *Confederation of British Industry, The Operation of the Industrial Training Act (September, 1968)*, p. 1.

**Table 1**  
*Grant as a Percentage of Levy by Firm Size in the Engineering Industry.*

Firm size (employees)	Total grant as a percentage of levy 1968-69 (all firms)
1-24	47
25-99	69
100-249	76
250-499	84
500-999	87
1000-4999	93
5000 plus	102

Source: Engineering ITB, *Annual Report and Accounts* (1970-71), p. 64

Nor is the last-mentioned an unusual example. In the cotton industry, firms with less than 100 employees paid 12.1 per cent of the total levy, but received only 3.4 per cent of total grants paid.\* In knitting, establishments with less than 100 employees recovered on average only 52.9 per cent of their levy assessment, while in those with 1,000 or more employees the percentage was 107.†

The boards have attempted to relieve the difficulties facing the small firm. Many boards have exempted firms with less than a certain minimum payroll or have instituted differential levy rates. Some boards have organized group training schemes so that many small firms can pool their resources and take advantage of economies of scale. However, a rough calculation, based on the Engineering Board's data, suggested that smaller firms do not as yet participate in such schemes. The average size of establishments involved in a group project is approximately 135 employees.‡

A final criticism concerns the organization of the board system along industry lines. Although such an arrangement has a number of advantages, it also creates some serious problems. First, many occupations cut across industry boundaries, some common

to a few sectors (such as foundry workers in engineering and steel) and others covering a broad spectrum (clerical and maintenance occupations). The boards have established a number of mechanisms to co-ordinate the training activity in these occupations. Two boards may form a joint committee to consider the form of training suitable for common occupations (as the Engineering and Iron and Steel Boards have done for the foundry industry) or the Central Training Council may set common standards for these occupations. However, because of the autonomy of the boards, these mechanisms have proved cumbersome. One difficulty is that investment devoted to training in common occupations is likely to be unequal among industries. If industry A invests more than industry B in the training for a common occupation, and the workers are mobile between the two, then A is in effect subsidizing B. Secondly, since the boards are responsible only for training in their own industry, the system is not equipped to deal with situations in which those currently employed in one industry require training to assist them in finding employment in another. Thus the boards are unable to make a contribution to problems of economic and technological redundancy.

As a total system, the Industry Training Board approach contains glaring inadequacies. Admittedly it has contributed to the implementation of improved training methods, fostered more research and brought a greater awareness of the advantages of investment in human capital. However, even if it is argued that these desirable results are obtainable only through the system, the cost is too high. The recent government proposals to modify the system drastically represent an almost total change in the Industrial Training Act. The major features on the new plan include:\*

- (1) a massive expansion in the government operated training program under the Training Opportunities Scheme (TOPS);
- (2) the provision of financial assistance for trainees;
- (3) a suggestion (which has since been altered somewhat) to phase out the levy-grant scheme and replace it with a system of selective public grants;

\* *Cotton and Allied Textile ITB, Report and Statement of Accounts for the Period Ended March 31, 1969 (HMSO: July 22, 1969), Table, p. 17.*

† *Knitting, Lace and Net ITB, Report and Statement of Accounts for the Year Ended March 31, 1970 (HMSO: July 21, 1970), Table, p. 11.*

‡ *Engineering ITB, Annual Report (1970), Table, p. 16.*

\* *Department of Employment, Training for the Future, pp. 46-47. For a brief analysis of the subject act cf. W. R. Dymond, "New Developments in the British Industrial Training System," Canada Manpower Review, fourth quarter, 1972 (Ottawa: Department of Manpower and Immigration), pp. 9-11.*



(iv) the establishment of a National Training Agency to operate the TOPS program, to co-ordinate the work of the boards that wish to remain, to meet the costs of the boards' approved programs and to initiate training in those areas in which the boards have not been active. It is also suggested that the agency occupy a semi-autonomous position relative to the Department of Employment.

#### b. The Apprenticeship System in West Germany

In absolute or aggregate terms the apprenticeship system is highly successful. If anything, it generates an oversupply of training services with a reported 250,000 training vacancies each year. Since the apprenticeship system is so pervasive it is legitimate to make a comparison with national economic indices. West Germany is unusual among industrialized countries both because of its high rate of teenage labour force participation and because of its very low rate of unemployment for young people.

The apprenticeship system can presumably take some credit for the successful absorption of young people into the employed work force, although its actual role is open to question.

However, the serious shortcomings of the apprenticeship system occur in the distribution of the training effort. As noted previously, wage-payment and compensation rules in Germany penalize worker mobility. The highly specialized and rigid apprenticeable trades classifications buttress this effect. Although some classifications are fairly broad and applicable to a range of employments, most are extremely narrowly defined. The overspecialization of the trade classifications can lead to the oversupply of certain trades and undersupply of others. Some scattered evidence suggests that oversupply is a serious problem, particularly in the handicraft trades. The apprentice-journeyman ratio in industry is about 9/100; in handicraft trades it is 18/100.\* In other words craftsmen are reproducing themselves in the artisan trades at twice the rate as occurs in industry and commerce. It is reasonable to assume that substantial numbers of these apprentices will be surplus to the handicraft trades and be forced to seek employment elsewhere. A sample survey taken in 1964 by the federal Statistical Office tends to confirm this point.† It revealed that 50 per cent of all

trained fitters, 47.4 per cent of all trained tool-makers, and 58.4 per cent of all trained automobile mechanics (all trades at least partly within the jurisdiction of the Handicraft Chamber) were no longer practising their originally acquired skill. If involuntary turnover occurs, the skilled artisan is forced, even if his trade is the same by nomenclature in both industry and the handicrafts, to enter industry as a semi-skilled worker.

The gross mis-matching in the handicraft trades has a paler reflection in the commercial sector. Apprenticeship is the major source of office and clerical skills in Germany. Of the 1.3 million apprentices in training in 1965, 347,000 were in commercial occupations. Over one-half of these, or 20 per cent of all apprentices, were in retail and wholesale trade which in itself suggests some misallocation of resources.\* Some of the narrowness inherent in apprenticeship is found in the commercial sector. For example, the occupation of general office clerk was not approved until 1962.† Prior to that time, office apprentices had to choose from among a group of more specialized occupations. The situation in the commercial sector is not as inflexible as in the handicrafts. In the former, the salary payment system is based more on job content than on certification. Some skills, such as secretarial and typist instruction, are not segregated, but are included as part of general office training. Allowing for these aspects, however, the apprenticeship system does not appear to distribute training efficiently, relative to manpower requirements. As one observer put it:

“Any correspondence between training effort in German apprenticeship programs and training needs is largely accidental.” ‡

As with the volume and distribution of training, it is difficult to generalize about the quality of instruction offered in apprenticeship. In some sectors and in some large firms it is outstanding. Further, many medium sized concerns, particularly in the metal fabrication and electrical industries, have co-operated with each other and the unions in the establishment of highly praised group training schemes. However, there has been unending criticism of the quality of instruction offered in the commercial and artisan trades. An authoritative German study of the apprenticeship system concluded that:

\* Data from Meyers, *Training in European Enterprises*, p. 48.

† Referred to by Benz, “Vocational Training”, p. 227.

\* Meyers, *Training in European Enterprises*, p. 59.

† Ibid., p. 59.

‡ Ibid., p. 52.

“In the fields where most apprentices are employed, namely handicrafts and commerce, the employers are little interested in systematic training.” \*

Although somewhat simplistic, the major reason so many employers are willing to offer training is that apprentices are a source of cheap labour. Particularly among smaller firms, there is a tendency to overpopulate the trades and very little concern for the future of the apprentice. A series of articles appearing in the magazine *Der Stern*, claimed that 60 per cent of all apprentices are merely cheap manpower.<sup>†</sup> This figure is questionable, but it indicates that a problem of considerable magnitude exists.

If there is a crucial shortcoming to the apprenticeship system, it is the unilateral power wielded by employers and their associations. If the system is controlled by the private sector it must be made economically attractive to the employer to invest in such activity. But to ensure profitability it has been necessary to establish a legal and institutional framework to assure a return on training investment. But artificially imposed barriers to worker mobility, although they serve to increase the supply of training, also impose costs on the trainee and society. Many of the less laudable aspects of the German system – the maldistribution of the training effort, the overpopulation of some trades, the poor quality of associated vocational education, etc. – can be traced to the restrictions imposed to ensure a generous flow of training services from the private sector. The recent legislative developments suggest that there is considerable unease in government circles over allowing the private sector too much control of the vocational training field.

#### c. Training for Labour Market Reasons Program in Sweden

The Swedish program is the most consistently successful of the three foreign systems. Its comprehensiveness, and the financial and administrative adaptability of its structure, are a model of what can be accomplished in the fields of training and manpower policy. The Swedes appear to have found a

workable synthesis which allows employers, unions and the government to co-operate effectively.

Essentially there is one major question and three serious criticisms associated with the Swedish program. The question – whether such an immense training effort is really necessary – is largely unanswerable without considerably more information on the alternatives than could be pursued. Rapid technological change, low unemployment rates and increased labour force participation suggest, at least circumstantially, that the program has been successful and necessary. A recent OECD document vigorously supports this conclusion. After a discussion of the rapid expansion of the Swedish retraining effort (and other selective manpower measures) during the 1968 recession, the authors of the study concluded:

“It seems evident that without this program the unemployment figures would have been much higher because the alternative policy in the form of general fiscal-monetary relaxation would have had to be much more cautious, in view of the risks this would have meant to the country's international competitiveness. The fact that the ordinary employment market at short notice could be supplied with a great number of persons accommodated in temporary jobs and training courses during the recession, permitted the government to pursue a more expansionist policy in toto than would otherwise have been advisable. . . . The decisive feature is, however, the selective direction of this excess of expenditure which was applied to make it less inflationary . . . than a more general and indiscriminate expansionist fiscal policy displaying the same budget deficit; not to talk about the even bigger deficit which would have been needed to create the same anti-unemployment effect as the one actually achieved.” \*

The first criticism of the program has been explored earlier. It is that the program is too heavily oriented towards the unemployed and the marginal labour force participant. The selection criteria discriminate against the employer and the employed worker who may wish to further his training. This may be permissible in a situation of full employment and

\* Wolfgang Lempert and Heinrich Ebel, *Lehrzeitdauer Ausbildungs-system und Ausbildungserfolg* (Freiburg: Rombach: 1965), p. 315; quoted by Meyers, *Training in European Enterprises*, p. 51.

† L. Bauer et al., “Report on Vocational Training and Occupational Prospects in the Federal Republic” (translation). *Der Stern*, Vol. 16, No. 52 – Vol. 17, No. 6 (1963-64). CIRF 3/2/06008.

\* OECD, *Manpower and Social Affairs Committee, Adult Training as An Instrument of Active Manpower Policy*, MO (69) 5, 2nd Revision (Paris: May 15, 1970) pp. 14-15.



labour shortage, but such a bias, as has been shown, is inconsistent with the principles of the program. The reason for the board's reluctance to support "internal" training is very practical – the program is already strained to capacity. But the lack of public use of such resources means that the contribution of internal training to increased economic welfare may be understated.

The second reservation to the Swedish program concerns the possibly disproportionate influence of the Board of Education and educational principles on the training process. It is difficult to assess this criticism except on the most subjective grounds. The issue may be something of a "red herring" because of the counterbalancing role of the private sector in the decision-making process. However, it cannot be dismissed out of hand.

Finally, because the program attempts to achieve a number of objectives simultaneously, there appears to be some conflict among these objectives. The contracyclical and contraseasonal goals are, by their nature, very short-term concerns. They imply a form of instruction that is short, intense and immediately job-oriented. They also imply that trainees must be in a position to curtail their studies quickly should the economic situation improve. The other objectives – increasing labour force participation, correcting regional and educational disparities and coping with redundancy – are essentially long-term in nature. They require basic remedial instruction with a large academic content. The conflict between long- and short-term objectives, pursued within the framework of one program, has not been addressed by the Swedish authorities. Perhaps it is merely a matter of establishing priorities. However, it may be that a division into two distinct programs is needed to solve two distinct sets of problems.

## 7. The Relevance of the Foreign Systems to Ontario

Anyone expecting to discover a model training system from an examination of systems in other jurisdictions is bound to be disappointed. Each system is the product of a unique economic, social and institutional framework. Differences are usually so substantial that even part of one system cannot be grafted onto another with any reasonable expectation of success. As much as we may admire the Swedish system, an even casual investigation of the conditions in which it developed should convince us of its inapplicability as a total concept for Ontario. Swedish manpower and training policy has been formulated within a unitary state (without federal-provincial jurisdictional difficulties), in a situation of considerable manpower shortage and in a society committed to labour-management-government co-operation. Economic policy is vastly different. Sweden has a commitment to full employment and a greater degree of tolerance for inflation than Canadian economic policy.

Fortunately this pessimism about the value of the foreign experience is not symmetric. The analysis may not offer a model but it does indicate directions that should be taken. Both an industry-based levy-grant approach, as found in the United Kingdom, and a compulsory apprenticeship system operated by the private sector, as found in West Germany, are inadequate as complete models. It is more than differing social, economic and institutional factors that make them inappropriate for Ontario. As we have endeavoured to show in the previous sections, these systems of industrial training simply contain too many problems to make them worthwhile.

So far only the negative has been stressed. However, there are two classes of positive recommendations that flow from the analysis of the foreign systems. In the first class are overall principles of policy that have been successfully incorporated into the foreign systems. The second group includes the techniques which could be introduced into our program with a minimum of alteration. In the first category, at least four items deserve consideration.

First, the experience of the foreign systems strongly suggests that industrial training cannot be viewed as a separate entity. As far as possible it must be integrated or co-ordinated with other instruments of manpower policy, preferably in a single agency. This agency should be given the necessary resources and autonomy to intervene decisively in the labour market. The Swedish Labour Market

Board is perhaps the most successful example of such an agency. But the enlarged role of the Federal Employment Office in West Germany and the recent suggestion in Britain to establish a Council on Manpower Services\* suggests that other jurisdictions realize the necessity of integrating manpower programs.

We realize that a complete integration is unlikely to be possible in Ontario because of Canada's federal system and because of the strong jurisdictional boundaries between governmental departments. Perhaps the best that can be hoped for is a closer liaison among agencies supplying manpower services. This has already been developed, at least for agencies supplying training services, with the creation of the Ministry of Colleges and Universities which embraces both post-secondary education and adult training. The Task Force will be recommending further co-ordinating machinery to link manpower training more closely to the needs of the labour market.

Secondly, the organization of the Swedish Labour Market and Education Boards and the West German Chambers suggests that the administration of our training system can be decentralized. Both the allocation of resources and medium-range planning could be undertaken at the regional level, with perhaps the community college as the institutional base. The Task Force will be making recommendations for strengthening the decentralized administration of training services.

The third suggestion complements the first two points. In one form or another – on the Labour Market Board in Sweden, more recently on the Committees for Vocational Training in Germany and, to a lesser extent, on the British Training Boards – representation by unions, employers and public officials is becoming the norm in the administration of training programs. Tripartite administration implies more than an advisory role for representatives of the private sector. It suggests the involvement of unions and employers in the larger aspects of decision-making, most crucially in the allocation of financial resources. By encouraging such a development it may, among other things, give incentive to the private sector to become more actively involved in re-

search and curricula development as has happened in the three European jurisdictions. The Task Force will be making recommendations which strengthen the role of tripartite machinery of advice in industrial training, and the greater involvement of labour and management in the administration of training institutions.

Fourthly, the foreign experience offers no hard-and-fast rules for deciding the relative distribution of financial responsibility for training. It does, however, demonstrate the implications of particular assignments of such responsibility. On the issue of financial assistance to trainees there seems to be general agreement, both here and in Europe, that this is a legitimate area of government involvement. One interesting possibility in this area is the use in Germany of a social insurance fund (a sort of expanded unemployment insurance fund) as a source of financial assistance to trainees. Such a provision is logical if training is viewed simply as another form of employment security.

Finally, there is the second class of recommendations – the various techniques that could easily be incorporated into Ontario's program. Of particular interest is the development of the module system in Britain and training-by-stages in West Germany. Both have common elements with Ontario's modular training scheme and offer excellent comparisons. Another feature is the development of co-operative training schemes for groups of small firms. These developments in Britain and West Germany have received consistent praise. Finally, the Swedish program offers a host of devices to stimulate flexibility in the training system. These include, among others, staggered entrance, monitoring of the operational status of training equipment, and the close liaison among placement services, the education authorities and the labour market agencies. The Task Force will be making recommendations designed to increase the flexibility of Ontario's industrial training system along these lines.

\* Department of Employment, Training for the Future, p. 42.



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## CHAPTER 4

### *Can employers serve public manpower policy objectives?*

#### 1. Introduction

The use of private employers as trainers to meet the goals of public manpower policies has received little emphasis in either provincial or federal programs in Canada. There have been some initiatives, such as Short-term In-industry Training (STIT) and Training-on-the-job (TOJ), but the resources allocated to these programs have been small relative to the total public expenditure on manpower training programs. The Economic Council of Canada drew attention to this situation in its Eighth Annual Review, and expressed serious doubts about the desirability of the heavy emphasis on institutional classroom training in Canada.\*

Training-in-industry has certain advantageous characteristics and can be preferable to classroom training in a number of contexts. In addition to teaching an occupational skill, training-in-industry provides an opportunity to become familiar with the physical working environment and for exposure to the importance of co-operation and the disciplines necessary for satisfactory job performance. In a training-in-industry program a student is placed with an employer and has the psychological and financial rewards of employment during training. As compared to training in conventional institutions of learning, training-in-industry can provide resource savings that arise from using the existing buildings, skilled instructors, and machinery and equipment available in industry rather than duplicating them in classrooms which are hard to keep up-to-date.

While a strong case can be made for the increased use of training-in-industry relative to institutional classroom training, there is lack of knowledge about private employer training capacities, and the policies and attitudes of those employers towards participating with government in training-in-industry programs to meet public manpower development objectives. This is in spite of the fact that the federal government's Training on-the-job Program suggests a substantial expansion of training-in-industry programs.

There is inadequate information on the types of training private employers do supply and the range

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\* Economic Council of Canada, *Design for Decision-making – An Application to Human Resource Policies, Eighth Annual Review* (Ottawa: Information Canada, 1971), p. 104.

of problems associated with an expansion of government-assisted, training-in-industry programs. In this context we are concerned with the use of private employers to train unemployed or other workers referred to them by government agencies (as an option to institutional training), not the financial support of employers who train their own employees to meet their own requirements.

Background information on the problems involved is important for the efficient design of government-sponsored, in-industry training programs, and special surveys of training-in-industry, as well as the findings of program evaluations, are reviewed in this chapter.

#### *a. Special Surveys of Training-in-industry*

Two surveys of training-in-industry in Ontario were used for our analysis. One was a mail survey of employers to obtain data on the incidence of formal in-industry training programs, the nature of the training provided and the characteristics of firms that provide these programs.\* The second survey comprised in-depth interviews, initiated by the Task Force, with a number of private employers. In addition, several surveys of training-in-industry undertaken in the United States have been drawn upon, both for comparative purposes and to extend the analysis.

During the 12-month period ending August 31, 1969, 21.8 per cent of the 6,942 respondents to the Ontario mail survey had sponsored or organized a formal in-industry training program. Apprenticeship was the most common type of training provided; 12.7 per cent of the respondents reported this form of training.† Only 5.4 per cent provided other

types of formal training programs, and 3.7 per cent reported both apprenticeship and other forms. In terms of volume of trainees, however, apprenticeship training was the least important method of occupational skill development. While 10.4 per cent of all employees reported in the survey were enrolled in a formal training program at some time during the twelve-month period, August, 1968 to July, 1969, less than one per cent (0.8) were apprentices. Given the small proportion of total trainees constituted by apprentices,\* and since apprenticeship is the main concern of a later chapter, the analysis that follows deals primarily with non-apprenticeship training programs sponsored by industry.

The distribution by size of establishment of the 9.1 per cent of employers offering training programs (excluding apprenticeship) reveals a clear-cut pattern. While employers in the smallest size category (15-19 employees) accounted for 5.6 per cent of the formal training programs reported, this proportion consistently rises as size increases. At the other end of the scale, employers in the largest size category (1,000 or more employees) accounted for 36.4 per cent of formal programs reported (see Table 2).

Another dimension of the role of large employers in training can be seen when the percentage of trainees is distributed by size of establishment as in Table 2. Establishments with 1,000 or more employees accounted for 82.7 per cent of all trainees, while for every other smaller size category this proportion was 5 per cent or less. In terms of numbers, Ontario employers are concentrated in the smaller size categories, which indicates that a small number of large employers account for almost all of the formal variety of in-industry training.‡

\* For this section we have drawn on a draft study prepared by M. Lagacé, which utilizes the results of this survey. The survey was sponsored by the Research Branch of the Ontario Ministry of Labour. Information was collected on formal training programs provided by employers between August 1, 1968 and July 31, 1969. Formal training was defined as any prearranged and structured system of instruction sponsored or used by a firm to qualify employees to perform their jobs, or to improve their skills for performing their duties. The survey was restricted to establishments with approximately 15 or more employees and all industries, with the exception of construction, public administration and defence, were included. A total of 11,221 reporting units were mailed questionnaires and the response rate was 68.1 per cent.

† For the purposes of the survey, apprenticeship was defined as a form of organized training leading to journeyman status, which involved a written or oral contractual agreement between employer and employee regardless of whether the apprenticeship was registered with the Ontario Government's Industrial Training Branch.

\* Part of the reason why apprentices did not account for a more substantial proportion of total trainees is the exclusion of the construction industry, a major user of apprenticeship training, from the Ontario survey.

‡ Another method of reviewing the relationship between size of establishment and the importance of formal in-industry training programs is to examine the proportion of respondents in each size category who sponsored a program during the twelve-month reference period. Although the data are not presented here, such tabulations have been reviewed and, as one would expect, the proportion increases as one moves from small to larger employers. Further, the same pattern exists for each of the industries covered by the survey.



**Table 2**

*Percentage distribution of establishments reporting formal training programs,\* and of trainees, by size of establishment, Ontario, August, 1968 - July, 1969*

Size of establishment (number of employees)	Percentage of establishments	Percentage of trainees
15-19	5.6	1.7
50-99	9.8	1.7
100-249	11.6	4.3
250-499	17.0	5.1
500-999	19.7	4.5
1,000 or more	36.4	82.7
Total†	100.0	100.0

\* Excludes apprenticeship programs.

† Columns may not sum exactly to 100.0 because of rounding error.

Source: Research Branch, Ontario Ministry of Labour.

A number of factors are responsible for these patterns. Small employers can presumably meet their manpower requirements by hiring workers with the required skills because their needs are small relative to the size of the labour market. Also, the possibility that other employers would bid their workers away after they had trained them may act as a strong deterrent against the use of in-industry training.

In comparison, large employers can not always recruit a sufficient number of skilled workers, especially if they hire a substantial proportion of workers in a particular occupational labour market. Under these conditions, formal training programs are at least a significant supplementary means of securing skilled workers. Further, large employers tend to provide better fringe benefits, and greater employment stability, factors which are a constraint on labour turnover. In turn, lower turnover reduces the risk that the employer will not be able to recoup his investment in formal training.

Economies of scale apply to the training of larger numbers of workers which means that training programs are more likely to develop in larger companies. In part, this differential in cost per trainee arises from the lack of "divisibility" of certain costs (e.g., overhead and equipment costs, and instructors' salaries). Although these considerations are somewhat speculative, they are suggestive of some of the factors that may underly the much greater importance of large establishments as sponsors of formal in-industry training programs.

To gain an insight into the degree of commitment of private employers to formal training, respondents to the survey were asked to indicate whether they employed one or more persons whose full-time job was to organize or direct formal training programs. This information provides some indication of whether training was a continuing activity which required full-time attention or an infrequent or minor activity that could be handled by supervisors or foremen on a part-time basis.

Only 14.0 per cent of the establishments with training programs reported that at least one person was responsible for full-time training (see Table 3). The proportion who reported that they had someone in charge of training varied with size of establishment from a low of 8.1 per cent for the smallest size category (15-49 employees) to a high of 56.4 per cent for establishments with 1,000 or more employees. This last statistic is somewhat surprising, since it means that even among very large employers a substantial proportion assign the training function to an employee whose job includes other duties.

**Table 3**

*Establishments with formal training programs by organization of program and size of establishment, Ontario, July, 1969*

Size of establishment	Proportion with one or more persons in charge of training full time
Total	14.0
15-49	8.1
50-99	4.0
100-249	10.8
250-499	21.8
500-999	33.3
1,000 and over	56.4

Source: Research Branch, Ontario Ministry of Labour.

In summary, of the 6,942 respondents to the Ontario survey a very small proportion had sponsored a formal training program, and only 14 per cent of those who had engaged in formal training had someone in charge on a full-time basis. Further, large employers were the main providers of formal in-industry training; establishments with 1,000 or more employees accounted for 83 per cent of all trainees.

It appears, therefore, that most Ontario employers do not rely on formal in-industry training programs to meet their manpower requirements. Rather, by inference, recruitment of workers from outside the establishment who have the needed background

and skills – and tailoring those skills to meet the employers' specific requirements through informal on-the-job skill acquisition – would appear to be the first priority, even at a time when the provincial economy appeared to be experiencing relatively tight labour markets.\*

Some further understanding of the actual practices followed by Ontario employers in meeting manpower requirements can be gained from the Ontario survey.

Although questions on the factors influencing hiring practices were not asked directly in the survey, some data were collected on recruitment patterns. Respondents were asked to indicate, in their order of importance, four sources of new employees during the twelve months ending July 31, 1969. The source used most often by employers was given a rank of one, the next a rank of two, and so on. The results are presented in Table 4.

Over all, hiring workers from outside the establishment without giving them formal training was the most important method for meeting manpower needs. Also, this was the first recruitment alternative for each occupational category listed in table 4, except supervisors and foremen. For them, recruitment from among existing employees with no formal training was the most important procedure. This exception probably reflects the need for supervisory employees familiar with the operations of the establishment, plant layout, company policy, and procedures. As well, the need for management to know the worker, how he gets along with others, and to be able to estimate his capacity for responsibility, would also tend to encourage the use of internal sources for supervisory jobs.

In general, the second most important method of filling jobs was recruitment, within the establishment, of people with no formal training. Again, the only exception was the supervisory category. Recruiting workers to fill vacancies, either from within or outside the establishment, and providing the workers with formal training appears to be the alternative employers choose only after exhausting the other possibilities.

\* The twelve-month average unemployment rate was 3.1 per cent for Ontario in 1969 as compared to 4.8 per cent in 1972.

In retrospect, the conclusion that Ontario employers are not heavily involved in formal training-in-industry is not surprising. In terms of economic growth and expanding employment opportunities, Ontario has fared extremely well relative to other regions of Canada. Consequently, the province has been a net gainer with respect to inter-regional labour mobility, and has been able to attract a large proportion of immigrants. Both developments have contributed to an increase in the supply of skilled labour available to Ontario employers. Also, from the late 1950s to the middle of the 1960s there was a sizeable public investment in technical and vocational education in the province, especially at the secondary school level. Further, in recent years there has been a considerable expenditure on technical and vocational training at the post-secondary level (Ontario's community college system), and in adult manpower retraining programs under the Adult Occupational Training Act. All of these developments have contributed substantially to the quantity and quality of skills of the Ontario labour force and have therefore reduced greatly the need for employers to turn to private, formal in-industry training programs to meet manpower requirements.

**Table 4**

*Source of new employees by occupation and rank,\*  
Ontario, August 1, 1968 - July 31, 1969*

Occupation	Source and rank			
	Outside establishment with no formal training	Within establishment with no formal training	Within establishment with formal training	Outside establishment with formal training
Total	1	2	3	4
Managerial and executive	1	2	3	4
Professional	1	2	4	3
Technical	1	2	4	3
Supervisory (including foremen)	2	1	3	4
Clerical	1	2	4	3
Sales	1	2	4	3
Service	1	2	4	3
Craftsmen and production process workers	1	2	3	3
Other	1	2	4	3

\* The source assigned the rank of one was mentioned most often as the most important. The source receiving a rank of four was mentioned least often.

Source: Research Branch, Ontario Ministry of Labour.



Furthermore, when one realizes that an employer's primary goal is to produce a marketable product or service as efficiently as possible, it should come as no surprise that employers give priority to the least costly method of maintaining or expanding their skilled work force – recruitment of workers from outside the firm. On this point, a survey of private employers in the Greater Cleveland area of the United States, to determine employer policies and practices on training, provides some support for the Ontario survey findings.\* Analysis of these results revealed that formal training is undertaken only where there are few other choices; otherwise, it is an activity that holds a very low priority among employers. Also, most of the formal training was done on a turn-on-turn-off basis because employers usually trained only when faced with a critical manpower shortage.†

#### *b. Nature of Formal In-industry Training Programs*

When training is provided by private employers, what types of program are provided and how comprehensive is the training?

The distribution of types of training given to trainees by respondents to the Ontario survey is shown in Table 5. Over-all, safety and orientation programs were the most important; taken together they accounted for 28.3 per cent. Next in importance was supervisory training, 10.4 per cent, closely followed by clerical training and training in trade or craft skills, 9.7 and 9.8 per cent respectively. Merchandising or sales programs, accounting for 8.7 per cent, were also important.

As might be expected, there was considerable variation between industries in the importance of various types of training programs. Of all trainees who had received formal training in the mining industry, 42.6 per cent were in a safety program. Safety programs were also important in the manufacturing sector where they accounted for one-quarter of the trainees.

The trade industry was involved most heavily in merchandising and sales training, while transpor-

tation, communications, and other utilities emphasized training in trade and crafts skills. Clerical training programs accounted for almost one-half of all trainees in finance, insurance and real estate. All industries reported a significant proportion of employees in supervisory training.

An insight into the depth of the training provided can be inferred from Table 6, where the distribution of trainees by type of training and length of course is illustrated. Course length is an imperfect substitute for a direct examination of course content and level of skill development; however, it should provide some additional understanding of the role industry plays in skill development.

Most of the trainees were enrolled in short courses; more than two-thirds (67.9 per cent) took courses which lasted less than one month while 22.6 per cent trained for more than one month but less than six. Only 9.5 per cent received training for six months or more.\*

The course length varied widely between the different types of training. The shortest courses were in programming, computer training and numerical control, personal services, safety, and orientation, which lasted less than one month for over 90 per cent of the employees involved.

A very high proportion of the trainees in administrative, supervisory, industrial or business processes, or sales training programs also took short courses. At the other end of the spectrum, academic upgrading was most important. The courses of over one-half of all trainees in this category lasted over six months.

To summarize, not only is the incidence of formal in-industry training programs low, but the training provided tends in the direction of being industry specific. For example, the finance industry (e.g., insurance and brokerage houses) concentrated on merchandising and sales training. Also, a substantial proportion of the trainees were enrolled in safety and orientation programs which do not develop new skills or refine existing ones. In addition, most of the trainees were enrolled in courses of very short duration which implies that the skills developed through in-industry training programs are narrow or limited.

\* J. L. Iacobelli, *Training Programs of Private Industry in the Greater Cleveland Area*, unpublished Ph.D. thesis, University of Texas at Austin (1969).

† An exception to this generalization was in the area of management training. Many firms, especially larger ones, apparently made a continuous effort to train at the management level in the belief that management ability is a major factor in the success of their companies.

\* It should be stressed that these are only rough measures of course-duration since nothing is known about the actual number of hours spent in training during the period.

Table 5

Percentage distribution of trainees by type of training and industry,  
Ontario, August 1, 1968 - July 31, 1969

Type of training	Total	Industry					
		Mines, quarries, and oil wells	Manu- facturing	Transportation, communications, and other industries	Trade	Finance, insurance and real estate	Community, business, and personal services
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Administrative and executive	4.3	0.7	4.9	1.8	4.6	7.4	10.7
Technician and technologist	6.5	*	7.8	10.0	*	*	11.6
Supervisory	10.4	4.2	13.4	6.5	8.8	12.4	5.3
Industrial or business processes	2.7	0.6	3.2	2.0	*	5.9	1.7
Clerical (includes office machine operators)	9.7	*	1.8	9.8	2.3	46.9	12.6
Trade or craft skills	9.8	23.9	3.2	26.8	3.1	*	1.3
Programming, computer training, numerical control	5.2	-	9.7	2.9	0.6	1.4	0.9
Machine operation and control	2.0	21.6	3.8	*	*	-	-
Academic upgrading	1.0	*	1.0	*	*	2.6	2.5
Merchandising or sales	8.7	-	3.3	1.7	40.8	9.0	14.2
Personal services	1.3	*	1.7	1.1	*	*	7.8
Safety	16.6	42.6	24.8	9.4	19.0	*	3.1
Orientation	11.7	-	18.3	0.8	16.3	10.2	14.7
Other	10.1	5.6	3.1	26.8	2.4	3.8	13.6

\* Too few observations to permit the calculation of a meaningful percentage.

Source: Research Branch, Ontario Ministry of Labour.

Table 6

Percentage distribution of trainees by type of training and length of courses,  
Ontario, August 1, 1968 - July 31, 1969

Type of training	Total	Length of courses		
		Less than 1 month	1-6 months	6 months or more
Total	100.0	67.9	22.6	9.5
Administrative and executive	100.0	76.9	9.9	13.2
Technician and technologist	100.0	50.9	47.3	1.8
Supervisory	100.0	78.4	9.5	12.1
Industrial or business processes	100.0	69.2	9.7	21.1
Clerical (includes office machine operators)	100.0	65.1	29.6	6.3
Trade or craft skills	100.0	10.2	73.9	15.9
Programming, computer training, numerical control	100.0	97.1	1.8	1.1
Machine operation and control	100.0	18.5	52.9	28.6
Academic upgrading	100.0	30.6	16.1	53.3
Merchandising or sales	100.0	73.9	3.7	22.4
Personal services	100.0	96.7	0.7	2.6
Safety	100.0	92.3	2.2	5.5
Orientation	100.0	97.2	2.8	-
Other	100.0	23.2	64.0	12.8

Source: Research Branch, Ontario Ministry of Labour.



All of these findings point to the conclusion that an employer, when he chooses the option of formal training to meet manpower requirements, tailors the program to meet his own specific needs which, in large part, are determined by the materials and processes being used to manufacture his product or service. Given this conclusion, formal training-in-industry might be viewed as a factor of production, with demand varying with level of production, changes in production methods, and the availability of options. With respect to options, the primary alternative is to hire workers in the external labour market who have the required knowledge and work experience. The feasibility of this alternative will depend partly on labour market conditions. To the extent that this view of formal training-in-industry is valid, then, the demand for it, as with other factors of production, is derived. It is a production factor, however, that has a distinguishing characteristic. Those who generate the demand can choose to supply a sufficient quantity to meet the demand by manipulating their own internal financial and other resources.

#### *c. Private Employer Policies and Attitudes*

The findings in the previous two sections have significant implications for government programs through which private employers are utilized as trainers to meet the objectives of public manpower policies. In recent years government has begun to turn to private employers, on a contract basis, to hire and retrain the unemployed. The stated goal of this activity under the federal Adult Occupational Training Act is to improve the utilization of the labour force which, in turn, would be reflected in increased productivity and economic growth.

Such a policy, however, involves two assumptions. First, that employers have the training capacity and expertise or, if not can create it; second, that employers would be prepared to train the unemployed on a contractual basis to meet public manpower objectives. The empirical evidence suggests that employers as a whole have a relatively limited training capacity, and that it is used primarily to develop narrow skills that are related to specific production processes.

Presumably, through a publicly financed manpower training program, the objective is to provide the trainee with a set of marketable skills sufficiently

general to permit him to be mobile and to compete effectively for employment. At present, most employers, in Ontario at least, do not appear to have the capacity to undertake the tasks of job analysis, curriculum design, and organization of training programs that are necessary for the development of many of the knowledges and skills that would enable the trainees to become competitive in the labour market.

Given this evidence, there are two alternatives. One, government could make the financial terms sufficiently attractive that private employers would be prepared to gear up to supply training of the kind desired. This assumes that private employers would be interested, and it could undermine seriously one of the key points of those who argue for a shift in emphasis from institutional to in-industry training programs. Their argument is related to costs: training-in-industry is economical because plant and equipment is more readily available than in an institutional classroom situation. In part, such economies could be offset, to a considerable extent, if employers require large financial incentives to readjust their present system to include formal in-industry training programs.

The second alternative would be for government to enter into contracts with private employers to buy from them, for those who require training, the type of training they give their own employees at present. In following this scheme, however, public funds would be used to buy occupational training which in many cases would be narrower than that available through classroom and laboratory programs. Of course, positive aspects of training-in-industry noted at the beginning of this chapter have to be balanced against this drawback.

The second assumption behind the proposal to utilize private employers as trainers to meet public manpower policy objectives is that the employers are prepared to participate in this type of program. How well does this hold?

A limited interview survey of private employers sponsored by the Task Force provides some clues to the answer.\* One purpose of this survey was to obtain information on employers' views and attitudes concerning their participation in government-subsidized training-in-industry programs.

\* A total of 174 employers were interviewed during the survey. These employers were distributed among six industries and the largest number (78) was in the manufacturing industry.

During the interviews, several forms of government involvement in training-in-industry were outlined to respondents, who were asked to comment. One proposal was that government would pay the company to train unemployed workers and the company would commit itself to keep the trainees on its payroll after completion of training. Just under one-half of the employers interviewed expressed an interest in principle, but most qualified their responses in various ways. The qualification mentioned most frequently was retention of the right to select the trainees and maintenance of the right to dismiss them. Some employers added that the proposal would be of interest only if they had a need for the trainees' services following training.

The reasons why some employers rejected the proposal included the belief that such a commitment would be restrictive or impractical because the employer might lose some freedom of selection and dismissal of employees. These employers did not wish to take on trainees who were unable to meet minimum hiring standards, nor to keep graduate trainees on the payroll if they fell short of the performance standards set by the company for particular jobs.

When the proposal was modified so that there was no requirement for the employer to keep the trainee on payroll after completion of training, the response was slightly more favourable. Approximately one-half of the respondents expressed interest in training the unemployed in return for government financial assistance, without the commitment to employ the graduates. Again, however, these positive responses were qualified as the respondents stressed the company's right to select and dismiss trainees. The position of those who rejected the modified proposal was that industry was not involved in the training business as an end in itself and, consequently, to employ government-assisted persons primarily for training was inappropriate in their companies.

While it would be dangerous to put forward sweeping generalizations on the basis of this one limited survey, the evidence does suggest that there may be

adequate support among a large number of private employers in Ontario for training-in-industry programs for the unemployed. In light of the qualifications that accompanied the positive responses of employers, however, there could be dangers in a simplistic approach to a government-sponsored training-in-industry scheme. Employers are reluctant, and reasonably so, to give up their right to select and dismiss trainees. As a result, only candidates who could meet, or come very close to the company's minimum hiring standards, would be selected, and they would have to meet minimum performance standards. Consequently, only the best qualified among the unemployed would be chosen, while those with a greater need for training on general grounds would have less chance of availing themselves of training-in-industry programs. Of course, whether or not this is a negative aspect will depend on a program's stated objective, that is, whether it is aimed at improving productivity and economic growth or is seen as a method of productive employment opportunities for the disadvantaged.

There could also be a very definite risk of abuse in any simple approach to public financing of training-in-industry. At the present time, employers usually provide relatively narrow skill training. Further, they wish to guard the right to select trainees. Under these circumstances, there would be a considerable risk that employers would receive a public subsidy to train those workers who have the highest probability of being hired and trained, either formally or informally, without any public financial incentive.

On this last point, it is useful to review the results of Iacobelli's survey of employers in the Greater Cleveland area of the United States. Part of this survey was aimed at ascertaining the policies, attitudes and practices of private employers with respect to training workers, and how employers viewed the role of government in the training sphere.\*

Regarding the types of workers that industry was prepared to train, employers indicated that they were willing to pay all of the training costs for workers who met their minimum entry level requirements, since in most cases these workers

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\* Iacobelli, Training Programs.



were trained to perform specific jobs. When questioned about "disadvantaged labour", workers who do not meet employers' minimum entry level requirements, most respondents believed that government had a definite responsibility for their training. In addition, the majority of the employers interviewed by Iacobelli indicated that government financial assistance would not motivate them to hire and train many workers who did not meet their standards. The employers were very concerned about the consequences of bringing too many disadvantaged workers into entry level jobs. Although these workers could learn the job as well as advantaged workers, employers felt that they had much less potential for promotion.

## 2. A review of government-sponsored training-in-industry Programs

Reviews and evaluations of government-sponsored training-in-industry programs can provide useful insights for both the revision of present programs and the design of new ones. Unfortunately, such evaluative studies are scarce in Canada. For Ontario, the Task Force is aware of only three studies on government-sponsored training-in-industry programs.\* Evaluations at the national level appear to be non-existent. This represents a significant gap in information for program and policy review, especially in light of the recent amendments to the Adult Occupational Training Act which permits the federal government to substantially increase the level of government financing of training-in-industry programs. Consequently, priority should be given to evaluations of recent and present programs to assess the costs relative to the benefits that arise and to whom they accrue.

The Ontario study on the characteristics of trainees was based on a 14 per cent sample of all those who entered government-assisted, in-industry training

programs in Ontario between April, 1967 and April, 1969.\* These were Short-term In-industry Training Programs (STITs). At the time of the study the federal government subsidized the in-industry classroom component of the training program; the firm could be reimbursed for up to 100 per cent of the instructor's wages and 50 per cent of the wages of each trainee. For the actual training-on-the-job component, the firm could receive a subsidy of up to 25 per cent of each trainee's wage from the Ontario government.† Also, for purposes of project approval, the following ordered set of priorities was used to review applications from firms for financial assistance to train workers:

- (1) projects that provide training for unemployed;
- (2) upgrading and retraining projects that result in the trainees vacating jobs which will be filled by the unemployed;
- (3) retraining projects for employees who would otherwise be displaced by technological change;
- (4) upgrading projects for current employees that would result in appreciable wage or salary increases.

From an analysis of the characteristics of trainees, it was concluded that the program was of most benefit to persons in least need of training in order to compete in the labour market. Those with the greatest need were bypassed. Over-all, the trainees tended to be younger, potentially more mobile, and better educated than others in the work force. Furthermore, it was found that only 30 per cent of the trainees in the sample had been unemployed before training and only a small proportion of these were hard-core unemployed. The majority of the trainees in the sample appeared to be those persons who had the best chance of finding a job without the help of an in-industry training program.

The situation just outlined was attributed to the fact that the employer had effective control over trainee selection under the program. Accordingly, employers applied their normal hiring standards

\* Alan Strang and Frank Whittingham, "An Analysis of the Characteristics of Trainees from Selected Government-Sponsored On-the-job Training Programs in Ontario" (Research Branch, Ontario Ministry of Labour, March, 1970, mimeo.). Alan Strang and Frank Whittingham, A Proposed Methodology for Cost-Benefit Analysis on Government-Sponsored Training-in-industry (Toronto: Research Branch, Ontario Department of Labour, August, 1970). H. Richard Hird and Alan Strang, Characteristics of Graduates and Drop Outs from Government-Sponsored On-the-job Programs (Toronto: Research Branch, Ontario Department of Labour, February, 1972).

\* This 14 per cent represented 1,245 trainees out of a total of 8,821 who had entered the Program from its inception in 1967 until April 1969. Although the sample was not designed to be completely representative of the total number of trainees, the statistics should provide an adequate description of the characteristics of trainees in the Program.

† Under the program, the federal government provided no wage subsidy for on-the-job training components.

and accepted only the best possible candidates for training projects. Furthermore, there was a built-in incentive for employers to be very selective under the program because they received no financial reimbursement for the training provided to persons who dropped out.

The STIT Program has been superseded in recent months by new initiatives from the Canada Department of Manpower and Immigration. As part of a special employment plan, Manpower and Immigration introduced the new Training-on-the-job Program to alleviate the high levels of unemployment during the winter of 1972. Twenty million dollars were allocated to this program across Canada, with the goal of "encouraging employers to prepare for future expansion in the firm or industry by training unemployed but employable workers for such future jobs in actual work situations."<sup>\*</sup>

Under this program, employers were reimbursed by direct payment of an amount equal to 75 percent of the wages paid to the trainees. According to guidelines set down for the program, an employer had to meet the following requirements to be eligible to participate as a trainer:<sup>†</sup>

- (1) possess the capability to provide adequate and meaningful training in transferable skills;
- (2) propose training in occupations offering reasonable possibilities of continuing employment;
- (3) provide working conditions in his plant or facility which meet accepted norms;
- (4) show evidence of a staff turnover rate which is not unduly high;
- (5) consult with his union and have no reason to anticipate opposition to the program from union sources;
- (6) have no regular employees who are on lay-off and who are able to perform the work for which trainees are to be hired;
- (7) hire the trainees for positions which are in addition to his normal work force at that time of the year and for the duration of the training period;

<sup>\*</sup> Canada, Department of Manpower and Immigration, Fact Sheet - Canada Manpower Training-on-the-job Program (Ottawa: undated).

<sup>†</sup> Ibid.

(8) be prepared to hire the trainees as regular employees, to pay them the wage rate applicable to the job (going trainee or minimum rate); accord them all usual fringe benefits and workers' protection established for his regular staff;

(9) ensure that trainees are subject to the terms and benefits of any obligations created by trade union contracts or provincial legislation.

Also, the training had to last a minimum of three months but could not exceed twelve, and it had to provide a "meaningful experience in useful transferable skills having a continuing value."<sup>\*</sup>

Whenever possible, employers were to select trainees from among candidates referred by Canada Manpower Centres, who were to be chosen from among the unemployed with particular emphasis on persons who found lack of recent work experience to be a barrier to employment. This category was defined in a very broad way to include youths, women entering or re-entering the labour market, welfare recipients, and graduates of institutional classroom retraining programs who required on-the-job training or work experience before they could be fully competitive in the labour market.

The Canada Manpower Training-on-the-job Program was judged to be a success by the Department of Manpower and Immigration and the allocation for it was increased from 20 to 50 million dollars in March, 1972. Further, the program was viewed as so successful that it was given permanent status under the Adult Occupational Training Act in April of the same year. In the 1971-72 Annual Report of the Department of Manpower and Immigration the program is attributed with the following successes:<sup>†</sup> more than 42,500 jobs were created at a per capita cost of about \$1,200; a substantial number of the trainees remained in permanent employment; the Canada Manpower Training-on-the-job Program played a positive and useful role in improving the economic conditions of the country and in bettering the Canadian way of life.

It is extremely difficult to accept or reject this state-

<sup>\*</sup> Ibid.

<sup>†</sup> Canada, Department of Manpower and Immigration, Annual Report, 1971-72 (Ottawa: Information Canada, 1972), p. 2.



ment since there is a great dearth of statistics on the program and no evaluations of it are available. However, one set of statistics on the characteristics of employers who participated in the program, made available in the Annual Report, does suggest that statements on success, at least from a training point of view, should be viewed with caution.

Of the total number of contracts approved under the new program, 90 per cent were with employers who had fewer than 50 employees, 68 per cent having less than 10 employees on their payrolls.\*

In contrast, the Ontario survey of training-in-industry showed that employers in these size categories very rarely provided any structured training programs for their employees, and consequently would have little expertise as trainers. This situation raises a serious question about whether or not the program guideline whereby employers were to provide a "meaningful experience in useful transferable skills" has been met effectively. Furthermore, the claim that "a substantial number of these trainees have remained in permanent employment" is open to some question, since small firms usually have higher than average labour turnover. Also, whether or not the program actually created jobs or merely provided a payroll subsidy to employers who would have hired workers without any financial incentive to meet their manpower requirements raises questions to which there is no quantitative answer. While these points can be raised, they cannot be answered adequately without access to more detailed statistics on program administration and information from follow-up surveys on the trainees.

However, some additional understanding of how successful in practice programs of the Canada Manpower Training-on-the-job type are, can be gained from an evaluation of the Job Opportunities in the Business Sector Program (JOBS) launched by the United States government in 1968. While a review of the JOBS Program is of value in itself, it is also useful because it appears that the Canada Manpower Training-on-the-job-Program was largely patterned on the United States scheme.

In the second half of the 1960s the United States was experiencing strong economic growth, increasing

affluence, and tight labour markets; but at the same time there was high and persistent unemployment and growing social disenchantment among disadvantaged workers and racial minority groups. Such persons lacked marketable skills and work experience. As well, there was little chance that the job market would provide them with employment opportunities that would permit them to develop these skills and obtain experience in them. It was against this background that the JOBS Program was introduced.\*

The JOBS Program is intended to combat unemployment by encouraging development of occupational skills and work experience for disadvantaged workers through a co-operative arrangement between government and private employers. Private employers would hire, train and retain hard-core unemployed workers and would be reimbursed by government for the higher costs associated with building them into their work forces.

Through JOBS, the following would be accomplished:† contracting companies would be enabled to provide immediate employment at regular wages for the hard-core unemployed workers identified by the government, and this would be coupled with training and supportive services; payments to companies would be provided to cover the extra cost of furnishing basic education, transportation services, corrective health services, counselling, and so on; employment would be provided for persons less qualified and requiring more training than the typical employee hired by the contracting employer; the upgrading of present employees caught in low-wage dead-end jobs to higher-level positions would be emphasized, in addition to the hiring of unskilled disadvantaged workers for entry-level jobs.

Under the guidelines for the program set down by the United States Department of Labor, the contractor (employer) is responsible for the training and other support services required to develop a productive worker. Also, "successful completion of training is defined as retention by the employer of the trainee as a full-time employee in the occupation

\* Ibid., Appendix Table 2, p. 20.

\* The description and evaluation of the JOBS Program that follows is based on Greenleigh Associates, Inc., *The Job Opportunities in the Business Sector Program – An Evaluation of Impact in Ten Standard Metropolitan Statistical Areas* (New York: June, 1970).

† Ibid., p. 12.

for which he was trained.”\* In addition, training in dead-end or declining occupations is not acceptable.

From the evaluation of the program’s impact on the job market it was found that most of the jobs made available to the hard-core unemployed were concentrated in occupations that traditionally have high turnover rates. Such jobs tend to be dead-end, offer little opportunity for the development of long-range skills, and are likely to be vulnerable to technological change. Also, it was discovered that there was no change in the number of persons contractor employers were hiring at the gates. Consequently, it was frequently found that self-motivated job-seekers who qualified as “disadvantaged”† would be referred by the employer to the relevant agency and subsequently would be sent back to the employer as JOBS Program participants.

The evaluators concluded that the JOBS Program had little impact upon numbers of unemployed; any reduction in unemployment in the areas studied was attributable to factors outside JOBS, such as new plant expansion. Also, permanency of employment for trainees was seriously affected by the demand for the contractor employer’s products and services. In this regard, the United States government’s anti-inflationary policies in the late 1960s were in direct conflict with the goals of the JOBS Program. Because of the negative impact of these policies on aggregate demand, the targets set for trainee placement could not be met, and many were laid off because the last-hired is the first to go under the seniority systems followed by many employers.

### 3. Implications for programs and policies

There is no doubt that training-in-industry has a number of commendable characteristics: flexibility, relevance, lower training costs, exposure to the actual work environment. Government should not, however, expect to exploit the potential of training-in-industry to meet public policy objectives through

naive program approaches. The present aim of public programs in this area is to provide a financial incentive to private employers to hire, train and maintain unemployed workers on the payroll after training; but this is too simplistic. In spite of a multitude of guidelines that one might set down for program administration, the approach involves too many risks that program objectives will not be met and that public funds will not be spent in the best interest of the taxpayer.

There are a number of troublesome aspects associated with present programs. First, private employers usually provide training in very narrow skills related to their own production requirements. Second, they are not prepared, and reasonably so, to give up their right to screen candidates for training under a contractual arrangement that involves both hiring and training unemployed workers. This combination of factors creates a serious risk that private employers who participate in government-subsidized programs will receive public funds to train workers meeting their minimum hiring standard for their own specific manpower requirements. In other words, there is a danger that employers might be subsidized for something that is their own responsibility.

Given the employer’s prerogative to screen trainees as potential employees, only the best qualified among the unemployed will receive the training opportunity. If the government’s objective is to improve productivity and economic growth, one cannot necessarily quarrel with this result, particularly if the program is an alternative to training in an institution at public expense. But if the programs aim to improve social welfare, it would be necessary to question whether the present publicly financed, training-in-industry schemes can do so. However, the key point to be stressed is that, when employment and training for the unemployed become the aim of a single government-employer contractual arrangement, the responsible public agency cannot expect to control who enters the program.

The main difficulty arises from the effort of government to couple both *employment* and *training* as goals to be achieved simultaneously through one program, especially when such programs are developed under crisis conditions generated by high levels of unemployment. It is difficult to know whether it is better to place unemployed workers on private employer payrolls through wage subsidies,

\* Ibid., p. 19.

† A hard-core disadvantaged person under the JOBS Program was defined as “a person who does not have suitable employment and who is either a school drop-out, a member of a minority, under 22 years of age, 45 years of age or older, or handicapped.”



or to provide them with a training opportunity that will permit them to compete effectively in the labour market. Regardless of which aspect is given priority, the limited evidence suggests that, in too many cases, neither an adequate employment nor training opportunity is provided. The review of the United States' JOBS Program indicated that many trainees found themselves in low-wage, dead-end jobs with very limited training capacity. Documentation available on the Canada Department of Manpower and Immigration's Training-on-the-job Program tends to suggest the same conclusion. Ninety per cent of the employers who participated in this program had fewer than 50 employees, and 68 per cent had less than ten. The Ontario survey of training-in-industry showed that there is little training expertise in small firms. Further, such firms usually pay lower wages and have higher levels of labour turnover than their larger counterparts.

Undoubtedly, training-in-industry has a positive role to play in manpower programs. There are many valuable occupational skills that can be developed effectively through in-industry training, and at a lower cost than through institutional classroom training. For many occupations a mix of in-industry and classroom training is the most effective and least costly method. Also, for many older workers training-in-industry may be more effective than institutional training.

The challenge is to develop an approach that will permit the benefits of training-in-industry to be realized for public policy purposes, but that will at the same time substantially reduce the difficulties associated with previous programs. To accomplish this, The Task Force concludes that it is necessary to divorce the employment objective from the training objective for unemployed workers.

If training-in-industry is to be a usable alternative to institutional classroom training to meet certain public needs, it should be bought from employers, for workers who require it, on the same basis that the government agencies responsible for manpower training programs at present buy training from educational institutions. Basically, the employer should be reimbursed for the training service he provides, in terms of the "net cost" plus a reasonable profit, on a contractual basis. The trainees would be referred to employers who participate in the program by the responsible manpower training agency.

Under the arrangement, the trainee would not enter into a standard employment relationship with the employer. Rather, he would have the same status as a person referred to training in an educational institution under a publicly-sponsored manpower retraining program. During the training period, he would receive an income support allowance paid directly to him by the government agency responsible.

Through the approach just outlined, the conflict in the present government-sponsored training-in-industry programs between the dual goals of training and employment for the unemployed would be substantially reduced. Such an arrangement would give the government agency responsible for training-in-industry programs to meet public objectives an opportunity to control effectively who gets trained and the type and quality of training provided. Also, there would be a much firmer basis for evaluating results. Effective control over these aspects is essential if public objectives are to be met through the programs.

Only the briefest outline of the approach to publicly financed, in-industry training favoured by the Task Force has been presented here. However, it is elaborated in depth in Chapter 8, which provides a detailed discussion of the financing of training-in-industry.

## CHAPTER 5

### *An overview of industrial training in Ontario*

#### 1. Manpower training programs

To provide a background of information for the analysis and evaluation of programs, this chapter will describe employer-centred and institutional training currently in operation which contributes to the development of skilled and technical manpower for the provincial labour force. A brief summary of two types of training has already been presented in Chapter 2. The first section of this chapter provides a more detailed insight into government-assisted employer-centred programs, discussing among other topics financial arrangements and objectives. The programs are as follows: Canada Manpower Training Program (CMTP); Training in Business and Industry (TIBI); Short-term In-industry Training (STIT); Apprenticeship; Canada Manpower Training on-the-job Program (CMTJP); Ontario's Special Winter Works Program.

##### *a. Canada Manpower Training Program*

The CMTP is administered by the Department of Manpower and Immigration under the provision of the Adult Occupation Training Act (1967) (AOT Act).

The CMTP is confined strictly to adults. To qualify as an adult, a person must be at least one year past the school leaving age and either (1) have been out of school for one year, or (2) be in an apprenticeship course. One further requirement is that, in the opinion of the local Canada Manpower Centre official, the person to be offered training must be considered capable of benefitting from it, or in other words, must acquire improved earning prospects.

Trainees under the program are eligible for living allowances. Prior to the amendment in the AOT Act, allowances were paid only to trainees who had been in the labour force for three years, or who had dependents. The Act was amended in May 1972 to extend eligibility for allowances to all those eligible for training. Allowances vary according to the number of dependents. They are adjusted annually in accordance with changes in the Canadian average of hourly earnings in manufacturing.

Assistance under the CMTP is also made available as an incentive to employers to establish internal training programs to help workers who would otherwise be laid off as a result of technological change. Employers are encouraged to hire unemployed workers and offer them skill training. A description of the training-in-industry program as it



operates in Ontario is presented later in this chapter under Short-term In-industry Training.

About 35 per cent of all assistance under CMTP in Ontario is for academic upgrading courses known, in training program terminology, as Basic Training for Skill Development (BTSD). This training focuses on mathematics, science, and improved use of language and communication skills. All occupational skill and BTSD courses are purchased for the trainees referred to the province by Canada Manpower Centres (CMCs), and Colleges of Applied Arts and Technology (CAATs) are used for most of the training, under an agreement between the Ministry of Colleges and Universities and the Department of Manpower and Immigration. Classes are conducted during the day for a period of 6 to 52 weeks. The large proportion of CMTP trainees enrolled in academic upgrading indicates the leaning of much of the CMTP toward the under-educated and less skilled elements of the labour force.

The CMTP also offers assistance to immigrants and native-born Canadians who cannot find employment because of language difficulties, by offering courses in English as a second language. Finally, unemployed workers are offered assistance for training or retraining in occupational skills in which it is judged that there is a demand.

Financial assistance is also made available for apprentices under the CMTP. The federal government pays the tuition costs of their classroom training. This payment is made only for apprentices who qualify as "adults" under the Act. Living allowances are also available to adults, and to apprentices living away from home; while at school, training and travel allowance are available. The federal government reimburses the province for the administrative costs of that part of the apprenticeship program which is related to school training.

In the fiscal year 1971-72, \$100,624,634 was spent under the Canada Manpower Training Program in Ontario.\* Of this, \$55,308,198 went for training and \$45,316,436 was spent on allowances. During this fiscal year, 70,617 persons received training, according to the following distribution:†

Training-in-industry .....	13,682
Basic training for skill development .....	17,554
Apprentice training .....	13,441
Language training .....	6,743
Skill training .....	19,197
Total .....	70,617

#### b. Training in Business and Industry

Training under Program 4 of the Technical and Vocational Training Assistance Act (1960) began in Ontario in 1965 with the offering of 100 courses in small business management. Later, supervisory courses and skill and upgrading courses were offered under this program.

The Colleges of Applied Arts and Technology (CAATs) are responsible for the promotion and administration of the Training in Business and Industry Program (TIBI) under the general direction of the Applied Arts and Technology Branch (ATB) of the Ministry of Colleges and Universities. Development Officers from the Colleges visit employers to explain the program and to determine how they can help them train their employees. Apart from technical consultation, employers are also offered financial support for the training. This assistance is designed to cover instructional and administrative costs, and can amount to a maximum of one-third of the total market value of the training course. This total includes imputed costs on such items as classroom space, even when it is provided by the employer. The firm is responsible for any development expenses incurred in preparing the course, and also for the wages of employees undergoing training. Where a company holds the course on its own premises, using its own instructors, there may be a rebate of instructional fees, based on the payroll costs to the company during the employee's training time.

To qualify for financial aid, a course has to be within the guidelines established by the Ministry of Colleges and Universities. These are as follows:\*

- (1) in general, the course should enhance the trainee's employability, industrial portability, and should not be unique to one company;
- (2) courses should have a substantial theoretical content and should be designed to meet the specific needs of the employer and employee;

\* Canada, Department of Manpower and Immigration, Annual Report, 1971-72 (Ottawa: 1972), p. 22.

† Ibid., p. 27.

\* Ontario, Department of Education, "Guidelines, Training in Business and Industry, 1971-72" (March 18, 1971, mimeo.).

(3) courses should be of a reasonable length to ensure effective training, and should have a reasonable number of enrolled trainees;

(4) courses conducted solely for university credit are not acceptable;

(5) management development training courses may not be financed under the program; such courses should be offered on a fee-paying, self-supporting basis.

There are three areas of concentration for courses offered under TIBI. The first is academic upgrading and includes such courses as Effective Writing, Effective Speaking, and English for New Canadians. Business and commercial courses are also offered, such as Real Estate, Business Machines, and Secretarial Upgrading. Finally, there are general skill upgrading courses, some of which are Basic Electronics, Blue Print Reading, Chef Training, and Vending Machine Maintenance.

Only employees of the firms assisted are eligible for training under this program. There are no minimum educational requirements to be eligible, but employees must be in a position to benefit from the instruction. Courses are often given during working hours.

Instruction may be given in the plant, in the local community college, or at any other convenient location. When conducted in the community college the firm is required to pay for classroom space. Class sizes normally vary from 6 to 25 students, and two classes can be given in the same course if there are enough trainees. Instructors may be recruited by the CAAT or supplied by the firm. The method of instruction varies depending on the type of course, and may involve lectures, seminars, shop sessions, or workshops. Classes may be held in the day or evening. Course lengths vary, but they must be at least eight hours. Participation is not limited to one company but may involve several firms or associations.

Because the program requires a commitment on the part of both the employer and the employee, there is a low drop-out rate (usually less than 10 per cent).

There is a financial commitment on the part of the employer, and the employee may be required to devote part of his leisure time to the course and possibly pay for books, fees, etc.

The advantage for a firm in undertaking a TIBI program is that there is very little "red tape" involved. The CAAT handles most of the administration, and since no federal funding is involved, administrative regulations are at a minimum.\* A further advantage is that the program operates from the community college rather than from a provincial office. In this way, it helps to keep the college abreast of employer training needs and to gain the confidence of the local industrial community.

The growth of the TIBI Program since 1965 indicates both its appeal to the business community and the successful marketing strategy of CAAT personnel. In Table 7, enrolment and the corresponding public expenditures for the TIBI Program are given by fiscal year.

**Table 7**  
*Enrolment and public expenditures for the Training in Business and Industry Program, 1967-72*

Fiscal year	Enrolment	Public Expenditure (\$000)
1967-68	23,284	975
1968-69	15,000	500
1969-70	28,313	1,308
1970-71	52,638	1,871
1971-72	57,695	2,384

1. Figures were obtained from files of the Applied Arts and Technology Branch, Ministry of Colleges and Universities.

2. Enrolment figures involve double counting for trainees who enrolled in more than one course in a given year.

\* Federal funding under the AOT Act was used for TIBI until 1968, one year after the introduction of the Act. The time lags, eligibility criteria, and administrative problems, however, resulted in major Program inefficiencies and a loss of flexibility. As a result, no further recourse was made to federal funding.



### c. Short-term In-industry Training

Government-sponsored in-industry training programs increased in number in 1964 with the creation of the Industrial Training Branch (ITB) in the Ontario Department of Labour. One of its major objectives was the provision of short-term training for skills that could be learned on the job in less time than was traditionally required in apprenticeship trades. The short-term training programs were designed both to train unskilled unemployed workers and to retrain and upgrade workers currently employed. As with TIBI in its early years, financial arrangements for this training were carried out under Program 4 of the Technical and Vocational Training Act. This program is presently administered by the ITB with financial support from the Department of Manpower and Immigration under the CMTP. Funds are made available for training-in-industry to encourage employers to initiate new programs, and expand existing ones. The priorities of the program are as follows:\*

- (1) to assist unemployed who would be hired were they to receive the training provided under the program, to assist about-to-be unemployed workers who would retain their employment if they were to be trained, and to assist part-time or intermittently-employed workers to become fully employed after having been trained;
- (2) to increase the extent and improve the quality of industrial training by assisting employers with the cost of initial programs, where these would not take place without such support, and by providing technical assistance when it is requested by employers;
- (3) to foster occupational mobility of the labour force by encouraging employers to provide broader, more transferable training;
- (4) to train workers in skilled occupations in short supply for which there is a continuing demand.

The program is introduced to an employer by a Development Officer from the ITB and a representative from the CMC. After analysis of training needs, the employer and the ITB Officer draw up a training schedule. A tripartite contract is then arranged,

and after approval by the ITB it is submitted to the Ontario Region of the Department of Manpower and Immigration for approval also.

In assessing the training schedule, preference is given to new training courses that lead to a continuing program not previously in existence. Support may not be given for programs that are already well established. Training leading to continuous, rather than casual, employment is preferred; however, this is not intended to discourage training in stable seasonal industries. Paralleling continuous employment, preference is given to occupational skills with long rather than short lifespan, and training leading to high occupational skills.

If the required skills are available in the local labour market, neither a training program nor financial assistance is given. However, assistance is given under this condition if the training is being provided for employees who would otherwise be laid off because of a lack of appropriate skills. Programs are sometimes not approved if they appear to be simply a means of adjusting to employee turnover resulting from poor working conditions or low wages. Finally, general education upgrading courses are not eligible for assistance unless they are required as a preliminary to more advanced skill training provided by the employer.

Financial assistance is provided by both the federal and provincial governments. For a firm to qualify for federal assistance in training an employee, he must be at least 17 years old, that is, a year older than the school leaving age. The provincial government provides equivalent assistance for trainees who do not qualify for federal aid.

The training schedule is divided into two segments: vestibule and shop. Prior to amendments to the AOT Act in 1972, training occurring inside the production area was ineligible for federal financing. Vestibule training was permissible on the production line when the equipment was essential to the instruction, and production of goods or services was incidental to the training.

Federal assistance for vestibule training reimbursed the employer for 100 per cent of instructor's wages, subject to a maximum scale, and 50 per cent of the trainee's wages provided that the trainees qualified as "adults" under the Act. The maximum instructor reimbursement was \$15 per trainee per day or \$75 per day, whichever was less.

\* Canada, Department of Manpower and Immigration, "Changes in Training-in-industry Guidelines" (March, 1972, mimeo.).

The federal government could also compensate the firm, entirely or partially, for other expenses such as training aids, rental of premises and equipment, maintenance and repair of equipment, and travel and living expenses where training necessitated relocation. The provincial government provided equivalent reimbursement for trainees who did not qualify for federal assistance.

The shop training was given on the job and involved production of saleable goods or services. The provincial government subsidized the firm for up to 25 per cent of all trainees' wages in this portion of the program. No federal or provincial assistance was given for trainees who dropped out, and all other costs were the responsibility of the firm.

The maximum length of the training period was 52 weeks or 1,820 hours of part-time instruction. The minimum was five days of full-time or 30 hours of part-time instruction. In normal circumstances, a training day was as long as a working day except when employees were trained in an institution, in which case the normal hours of the institution were accepted.

The 1972 amendments to the AOT Act permit federal reimbursement to be paid on behalf of most persons who previously did not qualify. Also, federal support can now apply to training-on-the-job under productive employment conditions without a specific requirement for formally structured instruction.

The new federal terms of reference make provision for four classes of industrial training: (a) training-on-the-job for job creation; (b) training for skills in short supply; (c) training for the disadvantaged; and (d) training-in-industry essentially the same as the short-term program previously described.

A different scale of reimbursement to employers is provided for each of these four programs, and the broader terms of the new legislation eliminate the need for financial participation by the province in all but a few cases.

The number of graduates from STIT programs for the fiscal years 1969-70 and 1970-71, and the associated government expenditures are presented in Table 8.

**Table 8**

*Graduates of, and federal and provincial expenditure towards, short-term, in-industry training, 1969-72*

Fiscal year	Number of graduates	Provincial expenditure (\$)	Federal expenditure (\$)
1969-70	5,663	701,456	1,214,313
1970-71	5,254	707,399	1,206,965
1971-72	6,390	664,424	1,226,303

Source: Industrial Training Branch, Ontario Ministry of Colleges and Universities.

In a study by the Research Branch of the Ontario Department of Labour in March, 1970, of 16 training-in-industry projects covering 1,245 trainees, 30.2 per cent were unemployed before training. Employed workers and those who were out of the labour force prior to training represented 48.2 and 21.5 per cent, respectively. The majority of the trainees were under 25 years of age and over 70 per cent had some high school education.\*

#### *d. Apprenticeship*

The present authority for government-sponsored apprenticeship training in Ontario derives from the Apprenticeship and Tradesmen's Qualification Act. This Act and the accompanying regulations are administered by the ITB and are designed primarily to meet the needs of the younger members of the labour force. On-the-job training is heavily emphasized and is supplemented by classroom instruction. For a trainee to qualify for the program, an employer willing to enter into an apprenticeship contract must be found and, the contract is then registered with the ITB.

While training, the apprentice is paid less than a journeyman in the same trade. The lower wage rate provides an incentive for employers to participate in the program. The minimum wage rate for an apprentice is as follows: (a) 40 per cent of the average wage of journeymen in the trade during the first period; (b) 50 per cent during the second; (c) 60 per cent during the third; (d) 70 per cent during the fourth; and (e) 80 per cent during the fifth period. If the employer is the only journeyman, the average rate for journeymen in the area is used as a basis.

\* Alan Strang and Frank Whittingham, "An Analysis of the Characteristics of Trainees from Selected Government-Sponsored On-the-job Training Programs in Ontario" (Research Branch, Ontario Department of Labour, March, 1970, mimeo.), p. 18.



The classroom portion of the training is offered at the CAATs and is paid for by the Department of Manpower and Immigration, under the regulations of the AOTA. The federal government also provides training allowances for apprentices during the period of classroom training. Ontario can claim only administrative costs attributable to the classroom instruction portion of the Apprenticeship Program. The identifiable costs of apprenticeship for fiscal years 1969-72 are shown in Table 9.

**Table 9**

*Tuition and training allowance costs of apprenticeship, 1969-72*

Fiscal year	Tuition costs (\$)	Training allowances (\$)
1969-70	5,400,000	3,500,000
1970-71	6,146,000	3,696,000
1971-72	6,243,000	4,160,000

Source: Industrial Training Branch, Ontario Ministry of Colleges and Universities.

When the Ontario government seeks financial assistance for a proposed new apprenticeship program, federal approval must be obtained, and is contingent on demonstration of adequate prospective participation of trainees in the program.

During the last fiscal year, there was a total of 18,561 active apprentices in 156 different trades registered with the ITB. These trades were identified under the Apprenticeship and Tradesmen's Qualification Act through an Order in Council.

The concept of apprenticeship is traditionally associated with the training of youth. However, in a study of apprenticeship in the mechanical trades undertaken by the Research Branch of the Ontario Ministry of Labour, this was not necessarily found to be the case,\* since 73.1 per cent of the apprentices were between 20 and 23 years old. The mean age was 22.5 years, and almost half were married. From the ITB files it would appear that the median age of entry for apprentices into all trades is between 20 and 21 years.

#### *e. Canada Manpower Training-on-the-job Program*

As part of its Special Employment Plan, the federal government introduced the Canada Manpower Training-on-the-job Program (CMTJP) in December, 1971. Prompted by continuing high unemployment,

the federal government wished to encourage employers to prepare for future expansion by training, in actual work situations, unemployed but employable workers for future jobs. As an inducement to hire trainees, federal assistance amounted to 75 per cent of their wages, or a tax incentive which would provide equivalent benefits through the write-off of wage costs at an appropriate level.

Assistance from the program was available to all private employers, including non-profit private agencies, and to public employers financed primarily from public fees or sales. Employers requesting training assistance had to submit a proposal to the local CMC outlining their training program and providing training details for each occupation. To meet the CMC's requirements the employer had to\* (a) be capable of providing adequate and meaningful training in transferable skills; (b) propose training in occupations offering reasonable possibilities of continuing employment; (c) provide working conditions in his plant or facility which meet accepted norms; (d) have a staff turnover rate which is not unduly high; (e) have consulted with the appropriate union and have no reason to anticipate opposition to the program from union sources; (f) have no regular employees on lay-off able to perform the work for which trainees are to be hired; (g) be hiring the trainees for positions which are in addition to his normal work force at the time of the year and for the duration of the training period; (h) be prepared to hire the trainees as regular employees, to pay them the wage rate applicable to the job (going, trainee, or minimum rate), and accord them all the usual fringe benefits and worker protection established for the regular staff; (i) ensure that the trainees are subject to the terms and benefits of any obligations created by trade union contracts or provincial legislation.

To receive assistance, employers had to hire trainees from among the unemployed, preferably referrals from CMCs. Unlike the regulations under the AOT Act, there were no age or labour force participation criteria. Trainees, however, had to be capable of deriving continuous benefit from the training and work experience in terms of increased employability or earning capacity. There were two major groups of

\* Research Branch, Ontario Department of Labour, "A Survey of Apprentices in Four Selected Mechanical Trades" (January, 1970, mimeo.).

\* Canada, Department of Manpower and Immigration, "Fact Sheet: Canada Manpower Training-on-the-job Program" (Ottawa: undated).

the unemployed to which the training was directed. The first consisted of those actively seeking work for whom the lack of recent work experience was a barrier to employment. Included in this group were youths, women entering or re-entering the labour force, and welfare recipients who had not worked for some time. The second group consisted of CMTTP or other vocational training course graduates who required further training and on-the-job experience before they could become fully competitive in the labour market.

Over 70 per cent of the 10,637 trainees hired under the program were males, corresponding roughly to the actual labour force percentage. There was a heavy emphasis on youth, as indicated in Table 10. Over 64 per cent of the male trainees were under 25, as were 55 per cent of the female trainees. The greater percentage of females than males in the older age group suggests that the program also reached women re-entering the labour force.

Federal assistance was provided only for training projects that were at least three months in length but not longer than twelve months. Thirty-one per cent of the training projects were of 13 to 16 weeks' duration. Another 27.5 per cent of the projects lasted 25 to 28 weeks, and a very small percentage was for longer than 28 weeks.

**Table 10**  
*Distribution of CMTJP trainees by age group and sex*

Age group	Sex		Total (%)
	Male (%)	Female (%)	
14-19	22.4	24.1	12.0
20-24	41.4	30.9	49.8
25-34	23.8	25.0	24.1
35-44	7.2	12.6	8.7
45 and over	4.6	7.4	5.4
Total	100.0	100.0	100.0

Source: Canada, Department of Manpower and Immigration.

#### *f. Ontario's Special Winter Works Program*

Following the announcement of the Canada Manpower Training-on-the-job Program, the Ontario government initiated a special program designed to ease the burden of unemployment and to provide an increase in skilled labour. To avoid competition with the federal program, the province concentrated its efforts in areas not covered by the federal pro-

gram. Ontario's program consisted of five parts: apprenticeship pre-employment training; upgrading of provisional certificate holders; on-the-job apprenticeship in small businesses; special short-term, industrial training; and, additional funds to facilitate training programs for Indians.

Due to the economic situation, apprenticeship enrolment had dropped off and a large number of planned spaces for in-school training remained unfulfilled. A program was devised to recruit persons with apprenticeship qualifications and place them in these vacancies. It was to be hoped that upon completion of the in-school training, the trainees would be able to find employment as apprentices; if not, they would be partially trained and better able to qualify for future employment.

A total of 1500 apprentices enrolled in 18 trades, and 1248 apprentices completed the training, of whom 872 passed. Most of the apprentices were enrolled in the motor vehicle mechanic and electrical trades, and enrolment was also high in plumbing, hairdressing, sheet metal working and brick and stone masonry.

A budget of \$800,000 was made available for the apprenticeship pre-employment program. Part of the tuition expenditures were claimed from the federal government under the CMTTP. The same training allowances were made available to pre-apprentices as to apprentices.

The second program was designed to recruit immigrant tradesmen for special training to enable them to become qualified journeymen. Many immigrants are unable to upgrade their occupational competence because of a language handicap and a lack of Canadian experience. As a result, training under this program was designed to strengthen language skills and/or specific trade terminology. Only 219 persons enrolled, and 154 completed the course, with 85 successful in attaining a Certificate of Qualification. A budget of \$520,000 was set aside for this program.

In the third program, employers were encouraged to participate in on-the-job apprenticeship. Small employers have resisted apprenticeship in the past, arguing that they cannot afford to pay unproductive labour during the early stages of training. As a result, employers who took on apprentices received a financial support of 50 per cent of the regular wage rate for apprentices for a maximum period of twelve weeks. It was hoped that apprentices would



be able to transfer to the regular apprenticeship program on completion of this initial training. Not as many employers participated as expected, and only 351 persons were registered in 23 trades.

Special short-term training-in-industry was offered under Ontario's Winter Works Program. The program was aimed at small businesses that could not train sufficient employees to be eligible for federal benefits, where conditions required that there be a minimum of six trainees per instructor in order to qualify for full reimbursement. The ITB assisted the employer in finding suitable trainees, and financial arrangements were identical to those of STIT. Over all, 157 companies became involved; 740 trainees were registered. Only 488 graduated, however, at a total cost to the Industrial Training Branch of \$264,548.

The final program was aimed at developing special training for Indians. A fund of \$25,000 was established from which Indian bands could obtain an advance for training against payments owing to them, but it was not used.

## 2. The role of Secondary Schools and Community Colleges

In Chapter 4 we provided a review and assessment of employer-initiated and -sustained training-in-industry programs, and in the first part of this chapter we dealt similarly with government-initiated training-in-industry programs. We shall now describe the role of the secondary schools and community colleges in vocational, industrial, and manpower training, and examine the inter-relationships of institution-based and in-industry training. These three agencies, industry, government, and the training institutions of the Province, are the major components of a total system for the supply of technical and business training to meet public goals.\* We feel, therefore, that a background understanding of the role of institutional training in Ontario, and its relationship with training-in-industry, is essential.

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\* There are a number of private training schools which undertake industrial training on a fee basis. The Task Force has not been in a position to review or evaluate their role.

### a. The Secondary Schools

Chapter 2 has indicated that from the turn of this century the secondary schools in Ontario have become increasingly committed, as a response to a number of pressures, to the teaching of technical and business subjects.\* Pressure for assistance in developing the skills required to meet manpower needs came from industry, and was felt by educational institutions and government shortly after 1900, when manufacturing began to replace agriculture as the most important element in Ontario's industrial economy. Both the provincial and federal governments were affected, as industry began to press for increased government action in vocational training. Referring to this period, R. M. Stamp† points out that the Canadian Manufacturing Association and the Trades and Labour Congress were not content to leave policy involving economic goals, and the means of achieving them, solely in the hands of professional educators. It became increasingly clear that industry felt that it had a right and responsibility to influence directly public policy in education and training.

Some educators themselves pressed for the extension of publicly supported vocational training. They saw the need, not from the point of view of the employer, but from that of the student. They argued that vocational training had a critical role to play in achieving the goals of general education by providing the individual with a broad set of life skills. Thus, many educators argued for a wider technical and business curriculum within the secondary school system, not so much for the specific job entry skills which such courses would provide, but for the generalized preparation for the world of employment that they would give the adolescent. This ran counter to the traditional views of educators, however, and accounts of the development of education in the province during the first half of the century indicate that this opinion was held by a minority of the profession. The traditional, and still most popular view, saw the schools and colleges of the Province as being dedicated to the teaching of academic rather than vocational subjects.

Finally, there was, in the 1950s and 1960s, increasing pressure from both the federal and provincial governments for the public training institutions in

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\* See R. M. Stamp, "Vocational Objectives in Canadian Education: An Historical Overview." In S. Ostry, ed., *Canadian Higher Education in the Seventies* (Economic Council of Canada, 1972).

† Ibid. p. 252.

the Province to take an increasingly active role in the retraining and upgrading of members and potential members of the labour force. This was motivated not by the needs of employers, or students, but by an economy faced with a lack of skilled manpower. The growing government pressure was evidenced in the provisions of the Technical and Vocational Training Act (1961).

The Ontario government, through its "Robarts Plan"\* made use of federal government funds available under the TVT Act to expand the vocational training facilities offered by the Ontario secondary school system. This move was part of a major rethinking of the goals and structure of secondary education. During much of the 1960s these technical facilities were employed on a full-time evening basis for retraining and upgrading programs. In addition, a number of the larger metropolitan school systems also provided full-time, manpower training programs, for members of the labour force, operated through special training centres.

What then, is the current state of affairs? What priority do the secondary schools of the province give at present to the teaching of technical and business subjects? How do they view their responsibilities within the broader vocational, industrial and manpower training fields?

As a result of recent changes in the policy of the Ministry of Education, secondary school graduation diplomas are no longer issued by program or branch. The emphasis of the Robarts Plan on separate "academic," "business," and "technical and trades" streams has been replaced by an emphasis on "patterns" of secondary education conceived within a general and pre-vocational education framework.†

Under present policy, provision is made for secondary schools to offer programs in "Occupational Education" of up to four years in length. These programs are intended to prepare students to enter the labour force directly from secondary school, and to provide the basis for further technical and business training when required. While the credits

earned in these courses count towards a secondary school graduation diploma, provision is also made for a "certificate of training" to be granted by the Ministry of Education. These certificates are issued to students who complete successfully a program of occupational education of up to three years. This provision for accreditation is made contingent on the recommendations of the school principal involved.

These recent policy changes appear to be consistent with the intent of the Robarts Plan. They appear to be justified also in light of current thinking in the education and training fields concerning the undesirable side effects of streaming, and on the importance of matching programs of instruction to individual student interests, abilities and aptitudes. By rejecting the streamed approach, the Ministry hopes to reduce significantly the social stigma traditionally attached to students in technical, trade and business programs, and so help to create a better school environment for the socialization of the adolescent in this province. At the same time, by making vocational subjects broadly available outside of rigid streaming systems, the Ministry hopes to encourage students to make use of technical training facilities for broader educational ends.

Finally, by replacing streams with a broad array of generally available academic, technical, trade and business offerings from which students can build a program of studies, under the watchful eye of parents and professional staff, the Ministry hopes that a significant step has been taken towards a more flexible approach to education at the secondary school level.

At present, then, the secondary schools of the province provide courses in technical and business training as part of a program for general and pre-vocational education. They may also provide courses for the teaching of specific vocational skills.

In the first instance, the target population is the university- and college-bound group. In the second instance, it is those who, for one reason or another, are not likely to proceed to university or college before entering the labour force.

At present, secondary schools have a substantial potential for mounting programs for vocational, industrial and manpower training. This potential exists in the form of staff with expertise in the tech-

\* See Chapter 2, page 31.

† See Ontario Department of Education, Recommendations and Information for Secondary School Organization Leading to Certificates and Diplomas. Circular HSI 1972-3



nical and business training fields, and in the form of plant equipment and training aids especially designed for vocational training purposes.

b. *The Community Colleges of Applied Arts and Technology*

The Colleges of Applied Arts and Technology (CAATs), unlike secondary schools, were intended from their initiation to meet vocational, industrial, and manpower goals, as well as the general educational needs of the province. The intended role of these institutions in Ontario was made clear when the founding legislation was introduced:\*

“ Ontario's future growth and the well-being of its people depend upon our continued ability to improve our competitive position as an industrial economy. This Government believes that increased productivity and efficiency must be our goal and that this goal can be best achieved in an economy in which each individual has freedom of choice . . .

The long-term solution to most of our problems obviously lies in education and training, in the fullest possible development and utilization of all our human resources. We must prepare Canadian youth to enter the multitude of highly skilled jobs available today and the ever greater number which will arise in the future .

Our true wealth resides in an educated citizenry; our shrewdest and most profitable investment rests in the education of our people . . . ”

In keeping with this statement of intent, the colleges have developed a comprehensive system of vocational courses and programs offered through their Technology, Business and Applied Arts Divisions, on both a full-time and extension basis. These programs vary from a few months to three academic years, with the emphasis on the latter, and provide the successful student with a diploma or certificate depending on the subject field and length of the program.†

\* Ontario, Department of Education, *Colleges of Applied Arts and Technology: Basic Documents* (June 1966).

† For an overview of the organization and functioning of the College system, see W. G. Fleming, *Ontario's Educative Society: Vol. IV. Post-Secondary and Adult Education*, (Toronto: University of Toronto Press, 1971), Chapter 16. For a detailed review of the program and course offerings of the Colleges, see *The Ontario Colleges of Applied Arts and Technology. A study prepared for the Commission of Post-Secondary Education in Ontario* (1972).

The colleges have also developed an extensive manpower training capacity intended to help achieve the economic and welfare goals of the provincial and federal governments. Programs are provided under contract with the provincial government, such as the Ontario Government winter works programs, and programs for the Ontario Ministry of Community and Social Services.

Under contract with the Ministry of Colleges and Universities, and under the Adult Occupational Training Act, a number of manpower training programs for referrals from the Canada Manpower Centres have also been developed by the colleges. Manpower programs for Indian students are also in operation in certain areas under contract with the Department of Indian and Northern Affairs.

The colleges have developed industrial training programs intended to meet the specific staffing needs of employers. These programs are contracted directly with the employer involved, as for example, under TIBI. In addition, the colleges provide the in-school portion of the training required for apprentices in the regulated and non-regulated trades registered with the ITB.

It is evident, then, that the Colleges of Applied Arts and Technology are playing a three-part role in the training field, in a manner that fulfils their mandate. They are providing vocational training programs intended to meet the occupational interests and career needs of individuals; manpower training programs intended to meet the economic and social policy goals of government; and industrial training programs intended to meet the skill needs of employers.

c. *Summary*

Figures 1, 2 and 3 summarize the broad scope of activities carried out by the secondary schools and colleges in Ontario towards fulfilling provincial goals in the vocational, industrial, and manpower training fields.\*

\* Public training goals and related programs in these three fields have been described in Chapter 2 in terms of the client groups which they serve.

Vocational training programs are those intended to help meet the occupational interests, aspirations, and economic needs of individuals. Industrial training programs are intended to help meet the hiring, placement, and promotion skill requirements of employers. Manpower training programs are intended to help meet the social and economic goals of government through occupational skill development.

**Figure 1**  
*The present supply of vocational training\* - from the secondary schools and colleges in Ontario*

Program designation	Training institution	Purchasing agency	Population served	Broad program objectives	Contribution of the school or College	Teaching arrangement employed	Funding arrangement employed	Government legislation sanctioning the purchase and delivery of training
1. Education of a general and pre-vocational nature (non-fee-paying)	Secondary schools	Not applicable	Secondary school students (compulsory enrolment below age 16); adults wishing to upgrade their general skills	To enable students to develop to their maximum potential as individual members of society	Classroom and laboratory courses in academic, technical and business subjects offered in four broad areas (communications, social and environmental studies, pure and applied science, <sup>†</sup> and art) on a course credit basis	Full-time day classes; part-time classes for adults wishing to upgrade their general and vocational skills	Levy on local taxation and Provincial legislative grants	<i>Purchase</i> Not applicable  <i>Delivery</i> Dept. of Education Act RSO 1970 Chapter III
2. Education for vocational (occupational) specialization (non-fee-paying)	Secondary schools	Not applicable	Secondary school students wishing training in specific job skills	To provide education and skill training for those students who wish either to enter the labour market or proceed to further skill training	Classroom and laboratory courses in academic, technical and business subjects with a realistic balance maintained between general and practical courses. Emphasis on co-op work experience in industry	Full-time day classes	Levy on local taxation and Provincial legislative grants	<i>Purchase</i> Not applicable  <i>Delivery</i> Dept. of Education Act RSO 1970 Chapter III
3. Adult education (fee-paying)	Secondary schools	Not applicable	Adults wishing to upgrade their general and vocational qualifications	To meet the specific needs of the local adult population not available through the normal day-school offerings of the secondary schools	Specialized facilities and staff are made available by the local board on an <i>ad hoc</i> basis	Evening classes	Diverse arrangements negotiated between participating parties such as employers, unions, parks and recreation, community services, etc.	<i>Purchases</i> Not applicable  <i>Delivery</i> Dept. of Education Act RSO 1970 Chapter III
4. Correspondence education (non-fee-paying)	Correspondence Course Branch of the Ontario Ministry of Education	Not applicable	Individuals 16 years or older, out of school for 3 months; those prevented by illness, disability, from attending school; those temporarily out of the province	To provide opportunities for academic, technical and business education to those unable to take advantage of the course arrangements normally available through the elementary and secondary schools of the province	The Correspondence Course Branch supplies lesson materials and answer papers in academic, technical and business subjects. It also corrects answer papers on a no-charge basis. The Branch loans text-books and other course materials to students	Correspondence	Provincial legislative grants	



Figure 1 (continued)

Figure 1 (continued)

5. Post-secondary or adult college-based programs (fee-paying)	Colleges	Students	Students holding Ontario secondary school graduation diplomas or equivalent; mature students, 19 years or older with appropriate upgrading courses	To provide occupational skills required by individuals for a productive and satisfying career	Classroom and laboratory courses in academic, technical and business subjects with appropriate work experience	Full-time 1-2-3-year programs; part-time extension or evening classes offered on a credit basis towards a certificate or diploma standing	Courses are provided for students on a fee-paying basis with govt. operating grant (formula financed) through Ont. Ministry of Colleges and Universities; 50% of the Ministry's course costs are recoverable from federal govt. Ontario student aid program available	<i>Purchase</i> federal government under fiscal Arrangements Act  <i>Delivery</i> Ontario government Bill 153, 1965. Education Act
6. Apprenticeship trades training programs (non-fee-paying)	Colleges	Industrial Training Branch, Ontario Ministry of Colleges and Universities	Students registered in Ontario's regulated trades	To provide the occupational skills required by individuals for a productive and satisfying career in the regulated trades in Ontario	Related classroom and laboratory courses, academic, technical and business subjects	Normally three 7-8-week courses for registered apprentices on block-release basis from industry; 33-week evening courses; upgrading for those who fail courses or who do not have complete registration requirements; part-time English courses for non-English speaking tradesmen prior to writing certificate of qualifications test	Course costs are claimed against an agreed upon budget with ITB; a portion of ITB apprenticeship costs are recoverable from federal Dept. of Manpower & Immigration	<i>Purchase</i> ITB under Apprenticeship and Tradesmen's Qualification Act, RSO 1970, Chapter 24, and by federal Government under Adult Occupational Training Act  <i>Delivery</i> Ont. govt. Bill 153, 1965. Education Act
7. Co-operative allied health programs (non-fee-paying)†	Colleges	Ontario Dept. of Health	Students registered by a regional or hospital school	To provide related academic training for health professions	Classroom training in academic subjects	Part-time 4-16 weeks	Costs are claimed against an agreed upon budget with regional or hospital schools in the province; a portion of the regional or hospital school costs are recoverable from federal Dept. of Health	<i>Purchase</i> Public Hospital Act RSO 1970, Chapter 378  <i>Delivery</i> By Ont. govt. Bill - 153, 1965. Education Act

NOTE:

\* The clients serviced by vocational training programs are individuals wishing to acquire general and occupational skills in accordance with their career plans.

† A wide range of courses in the technical, business, and personal service areas are offered as part of this grouping.

‡ These programs will be put directly under the control of the Ministry of Colleges and Universities as of September, 1973.

Figure 2

The present supply of industrial training\* – from the secondary schools and colleges in Ontario

Program designation	Training institution†	Purchasing agency	Population served	Broad program objectives	Contribution of the school or college	Teaching arrangement employed	Funding arrangement employed	Government legislation sanctioning the purchase and delivery of training
1. TIBI	Colleges	Industry	Employed workers	To upgrade the general occupational skills of workers in industry to meet employers' needs	Colleges provide for employers professional consultation in curriculum development, make teaching arrangements, and help to pay for courses in academic upgrading; business and commercial subjects; technical skill development	Hourly release from the job or evening classes located on employer's premises	Colleges pay for instructional and administration costs up to 1/3 of the total value of course (see Chapter 5, p. 76, for details)	<i>Purchase</i> Not applicable  <i>Delivery</i> Ont. govt. Bill 153, 1965. Education Act
2. Management Development Program (MDP)	Colleges	Student or employer	Small businessmen and management personnel	To provide supervisory and administration skills for employed staff	Colleges provide curriculum guides, course materials, and class facilities with the assistance of Ontario Ministry of Colleges and Universities	Provided on a part-time basis through the extension divisions of the colleges	Operating costs are covered by direct grants from the Ministry; separate funds are provided for program coordination and materials development through the budget of Ministry of Colleges and Universities	<i>Purchase</i> Not applicable  <i>Delivery</i> Ont. govt. Bill 153, 1965. Education Act
3. Modular training projects (see Chapter 11)	Colleges (provided on pilot project basis)	Employer	Employed workers	Skill upgrading and retraining required by employers to meet their own staffing needs	Colleges provide the classroom and laboratory courses required in academic and technical subjects	Day release or evening classes	Funds provided for curriculum development and for purchase of college training facilities through the budget of ITB	<i>Purchase</i> Not applicable  <i>Delivery</i> Ont. govt. Bill 153, 1965. Education Act

\* The clients served by *industrial training* programs are employers wishing to provide new work skills for their labour force.

† The industrial training program noted here are all based in the colleges. We are aware, however, that some secondary schools also make their staff and facilities available to industry for training purposes. These services are at present provided on an *ad hoc* basis under the broadly-defined adult education activity noted in Figure 1, item 3. Because of the *ad hoc* nature of secondary school programs in industrial training they have not been included here.



**Figure 3**  
The present supply of manpower training\* - from the secondary schools and colleges in Ontario

Program designation	Training institution	Purchasing agency	Population served	Broad program objectives	Contribution of the school or college	Teaching arrangement employed	Funding arrangement employed	Government legislation sanctioning the purchase and delivery of training
1. Federal Government-initiated programs†	Colleges	1. Federal government Dept. of Manpower & Immigration through CMCs‡ purchases places for about 75% of enrollees. The balance are either sponsored by other private or public agencies or are fee-paying\$	Those registered with local CMC offices or other funding agency; other students on a fee-paying basis	Primarily economic growth and equity	Classroom and laboratory courses in: English as a second language (EASL); Basic training for Skill Development (BTSD); Technical and business skill training	Full-time courses up to 52 weeks in length	For trainees selected by CMCs 100% of course cost recoverable from Dept. of Manpower & Immigration for those students who qualify under their eligibility rules. Commuter and living allowances are also made available. Those not selected by CMCs may be provided for by the province under formula financing on a fee basis	<i>Purchase</i> Under federal Adult Occupational Training Act  <i>Delivery</i> Under Ont. govt. Bill 153, 1965. Education Act
	Colleges	2. Federal govt. Dept. Indian Affairs and Northern Development and Individual Band councils**	Treaty Indians registered with Dept. of Indian Affairs and Northern Development	General education and occupational skill development for the adult Treaty Indian population	Classroom and laboratory training in academic, technical and business subjects	Regular classes on college campuses; satellite classes operated on the reserve	Tuition fees paid for normally available on campus courses; 100% of course development and operating costs paid for special courses by Dept. of Indian Affairs and Northern Development	<i>Purchase</i> Federal govt. Treasury Board Authority  <i>Delivery</i> Under Ont. govt. Bill 153, 1965. Education Act
2. Provincial government-initiated programs	Colleges	1. Workmen's Compensation Board	The disabled while employed	Rehabilitation of the physically disabled	Classroom and laboratory training in academic, technical and business subjects	Full- and part-time classes highly individualized to meet needs of disabled	Workmen's Compensation Board pays \$75.00 per term with operating grant formula through MCU††. 50% of course costs are recoverable from Fed. government	<i>Purchase</i> Workmen's Compensation Board Act RSO, Chapter 505 and by federal govt. under Fiscal Arrangements Act  <i>Delivery</i> Ont. Govt. Bill 153, 1965. Education Act

Figure 3 (continued)

Colleges	2. Ontario Ministry of Community & Social Services	The mentally & physically disabled not qualifying under WCB eligibility requirements	Rehabilitation of the disabled	Classroom and laboratory training in academic, technical and business subjects	Full- or part-time classes highly individualized to meet the needs of the disabled	100% of course costs are recoverable from Ont. Dept. of Social and Family Services	Purchase Vocational Rehabilitation Services Act RSO 1970, Chapter 484
Colleges	3. Industrial Training Branch, Ont. Ministry of Colleges & Universities	A consistent pattern of Ontario government courses for meeting manpower training goals through the work of the Industrial Training Branch has not yet emerged. See Chapter 5, p. 110 for description of one such program – the 1971-72 Ontario Winter Works Program.					

\* The clients served by manpower training programs are government agencies concerned with resolving economic and/or welfare problems in the province.  
† The program designations used here do not correspond to formally recognized program titles. The designation has been selected to identify the government agency who contracts for the training, who takes the initiative in developing and sustaining the program, and who finances at least part of the costs of the training activity provided. Programs have been variously referred to as Canada Manpower Training Programs, retraining programs and adult training programs.  
‡ CMC – Canada Manpower Centres operated by the federal Department of Manpower and Immigration on a regional basis across the province.  
§ The Applied Arts and Technology Branch has exclusive brokerage rights with Canada Manpower Centres in Ontario, in providing training for CMC referrals.  
\*\* The responsibility for the purchase of training is at present being moved from the Department to individual Band councils. It is expected that by April of 1973 these councils will negotiate their own training through the Colleges and other appropriate institutions.  
†† MCU – Ontario Ministry of Colleges and Universities.

Figure 4  
The complementary roles of institution-based training and training-in-industry in Ontario

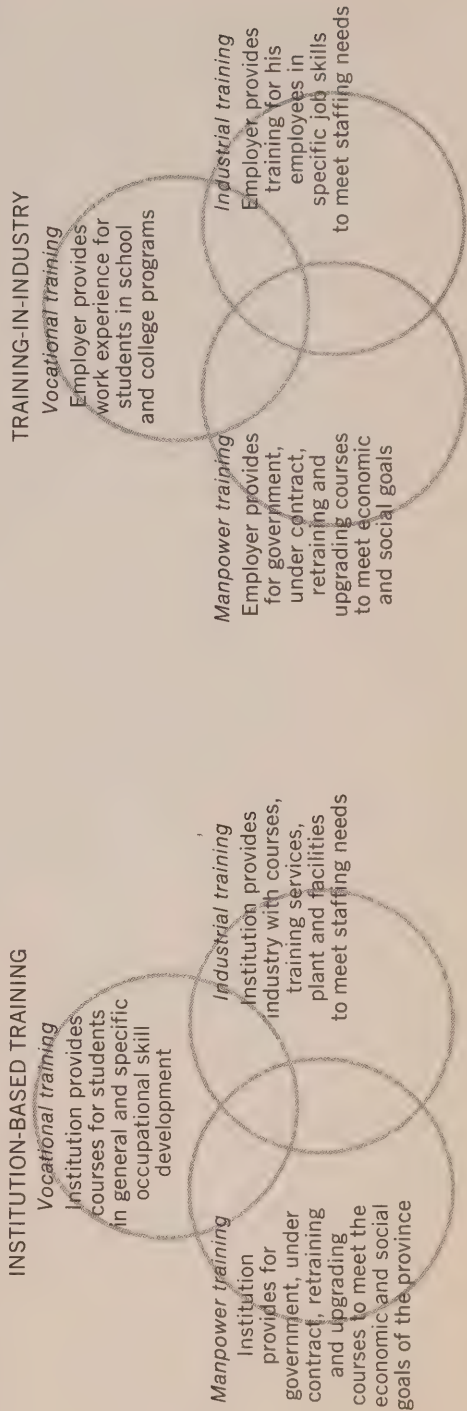




Figure 1 gives details of the various vocational training programs by program designation. Details are provided on the institution, (secondary school or college) providing the training; the purchasing agency; the target population being served; the broad objectives of the program; the specific contribution of the school or college to meeting broad program objectives; the teaching and the funding arrangements employed by the program; and the various legislations which sanction the purchase of training and its delivery by the school or college. Figures 2 and 3 provide similar details on current publicly-supported industrial and manpower training programs in the province.

An inspection of the characteristics of the programs summarized in these figures, and those outlined in Chapter 4, indicates that there is at present a complex array of training arrangements involving both the secondary schools and colleges and training-in-industry. Some arrangements involve the schools and colleges to a high degree, others to a lesser degree, and some not at all.

There are, for example, the pre-vocational and occupational programs of the secondary schools and the full-time vocational preparation programs of the colleges which rely almost entirely on public facilities and staff. At the other end of the spectrum there are programs such as STIT, which are entirely employer-based and use no school or college resources. In the middle are programs such as the existing TIBI and apprenticeship training programs, which rely on contributions from both colleges and employers.

This review suggests that the role of the secondary schools and colleges in the province complements employer-based training, as described in Chapter 4. This complementary relationship is illustrated in Figure 4.

Based on the above analysis, we conclude that an important element in any rationale for government support for training-in-industry is the principle that institution- and industry-based training be mutually supporting and interacting components of any delivery system for achieving public training goals.

### 3. Post-secondary Educational "Channels"

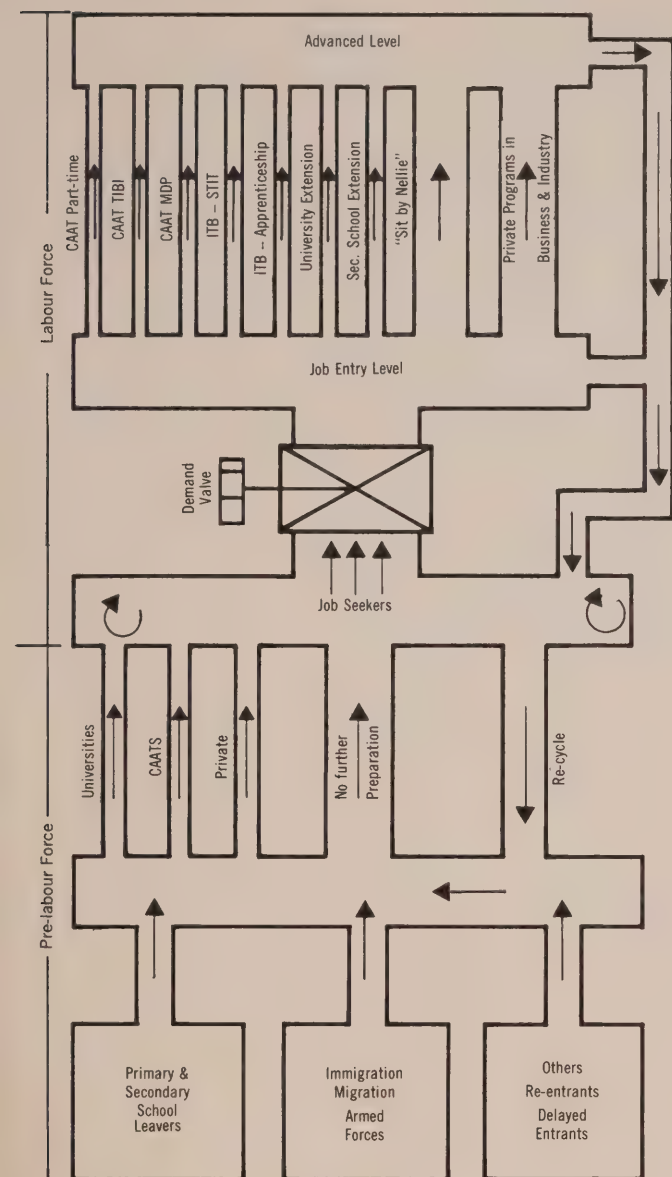
In this section of the Report, the Task Force presents a series of statistics which it has collected to determine the relative position of employer-centred training programs in the total spectrum of post-secondary education and training. These statistics are designed to define, as accurately as possible, the context in which publicly subsidized, in-industry training programs operate, and to answer such questions as: What are the levels of enrolments and graduations in the various channels? What are the public expenditures on each program measured in terms of man-days and enrolees? The Task Force was surprised to find that this information had not been collected before.

Figure 5 entitled "Labour Force Training Channels" pictorially portrays the flow of people into the labour force from various sources, as well as the educational and training channels which play a role in preparing these people before they enter the labour force and afterwards. The figure identifies the structure of training channels in the province.

An examination of the footnotes to Tables 11 and 12 will reveal that many of the figures are rough estimates, and that there are elements of non-comparability between channels respecting the definition of costs, enrolees, outputs, and man-days of training. We therefore present these statistics, not as data from which precise conclusions can be drawn, but rather as indicators of the magnitudes involved in publicly-supported, post-secondary education and training channels. If more precise conclusions are to be drawn, and if a tool for future decision-making is to be constructed, systematic and sustained effort must be organized to develop an information system which will permit comparisons between programs, and which will provide a base for their evaluation in terms of objectives, costs and the efficiency with which they utilize public resources. We do not claim our statistics to be any more than the starting point. Most of the information is presented in the form of charts.

The Task Force uses the word "channels" to cover the variety of institutional and in-industry training

**Figure 5**  
*Labour force training channels*



and educational programs found in Ontario.\* It is intended to suggest the progression of trainees through various routes into the labour market. The term "post-secondary" includes not only those who have reached Grade XII standing, but also all trainees outside the primary and secondary educational institutions.

There are many differences in the forms channels take, which result in great variations in training cost when measured on a per man-day or per enrollee basis. Channels range from short programs, of two to three weeks' duration in the case of STIT and TIBI, to three- and four-year graduate and undergraduate programs in universities. It was primarily because of training length variations that a man-days measure was chosen to indicate the costs of resources used in each of the channels.

*a. Sensitivity of Post-secondary Channels to the Labour Market*

Figure 6 illustrates the rates of change in enrolments in the various channels in the years 1967-68 to 1970-71. It will be noted immediately that these rates vary enormously between channels. Some, such as CAATs post-secondary and universities, show rapidly increasing rates, some indicate relative stability, and others show a pattern of increase with a subsequent decrease. The Task Force was asked to look at the interface between training and education and the needs of the labour market. From this perspective we ask how sensitive are channels to the needs of the labour market over the years examined. As we indicate in Chapter 12, where this point is studied in greater depth with respect to some of the channels, the data do not permit a precise response to this question. Here we can examine only the channels' total output in relation to variations in the total demand for labour. It should be borne in mind when evaluating this relationship for CAATs, nursing training, teacher training and universities, which in general play a

\* Our study of industrial training programs is not complete as it covers only those within the jurisdiction of the Ministry of Colleges and Universities. There are certain specialized programs operated by the Ministry of Social and Family Services, the Workmen's Compensation Board, the Ministries of Agriculture, Indian Affairs and Northern Development, and Correctional Services which are not covered. In 1969-70 total public expenditures in the province on programs under these Ministries amount to \$6,418,216. This figure was derived from Exhibit 22 of Commission on Post-secondary Education in Ontario, *Manpower Retraining Programs in Ontario* (Toronto: Queen's Printer, 1972), p. 10.



**Table 11**  
Post-secondary education channels; master table fiscal years 1967-71

Channels	1967-68			1968-69			1969-70			1970-71		
	Enrolment	Outputs	Public subsidy (000)	Enrolment	Outputs	Public subsidy (000)	Enrolment	Outputs	Public subsidy (000)	Enrolment	Outputs	Public subsidy (000)
(a) CAAATs Diploma programs	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
(1) CAAATs Diploma programs	11,856	3,310	23,100	19,059	5,187	45,000	24,724	6,057	54,218	30,382	10,008	68,939
(2) Ryerson Polytechnical Institute	5,120	1,054	5,439	5,778	873	7,447	5,728	1,418	9,090	6,693	1,257	9,990
(3) Nursing	9,202	2,948	25,149	9,782	2,761	28,157	10,407	2,898	31,909	10,755	4,811	33,492
(4) Teachers' colleges	6,853	DNR	7,086	9,277	DNR	8,430	7,010	DNR	8,441	7,571	DNR	9,201
(5) Universities	79,583	18,116	161,336	92,625	20,926	215,100	105,235	24,030	273,100	116,840	26,290	319,009
(6) CAAATs retraining	45,448	37,363	19,319	59,341	40,684	25,333	62,277	44,096	34,373	62,945	45,661	36,608
(7) Apprenticeship	16,323	3,332	2,957	17,491	3,311	5,039	19,259	3,333	6,211	18,145	4,412	6,728
(8) Short-term In-Industry Training (STIT)	3,344	1,890	540	6,487	4,782	2,024	7,443	5,663	1,915	7,346	5,254	1,914
(9) CAAATs (TIBI)	23,284	DNR	975	15,000	DNR	500	28,313	DNR	1,308	52,638	DNR	1,871
(10) CAAATs (MDP)	9,122	DNR	50	6,780	29*	29*	9,160	DNR	13	8,740	DNR	65
(11) Private trade schools	20,888	DNR	(8,105)	19,410	DNR	(7,531)	18,119	DNR	(7,030)	17,401	DNR	(6,752)

Short-term In-Industry training (STIT) - training-in-industry program offered and administered jointly by Ontario and Canada.

CAAATs diploma programs - full time courses, in applied arts, business and technology, of two, two and three years' duration offered by the Colleges of Applied Arts and Technology.

Nursing - schools of nursing only. Baccalaureate and nursing assistant programs are not included, to avoid double counting with lines (5) and (1) respectively.

Teachers' colleges - ten provincial teachers' colleges and three universities provide elementary school teacher education, and all are included in enrolment figures above. Secondary and vocational are not included in this line to avoid double counting with line (5). Total teacher enrolments were:

	Elementary	Secondary	Vocational	Total
67-68	6,853	987	206	8,046
68-69	9,277	1,829	287	11,393
69-70	7,896	2,637	237	10,770
70-71	7,571	2,473	293	10,337

Universities - full-time enrolments in all programs.

CAAATs retraining - full-time programs of 52 weeks or less, including academic upgrading and skill training. Much of the enrolment provided under provisions of AOT Act.

Apprenticeship - Province of Ontario apprentice training program. Does not include company-sponsored or other private programs.

CAAATs (TIBI) - Training in Business and Industry; a co-operative program with industry, government and the individual sharing costs. Offered by the Applied Arts and Technology Branch through CAAATs.

CAAATs (MDP) - "packaged" program in management development offered by the Applied Arts and Technology Branch, Ministry of Colleges and Universities, through the colleges. \*Program sold at its approximate cost with a profit in 1968-69.

Private trade schools - training schools registered in the province and operated for profit.

Outputs - numbers of persons successfully completing their prescribed programs.

Public subsidy - the tax-supported portion only of the operating costs of each program; tuition fees, where applicable are not included. The monies reported for private trade schools, line (11), represent tuition fees paid by enrollees to the private school operators. The apprenticeship subsidy is for the operating costs of the in-school portion of the apprentice training program and also includes the salaries of that part of the staff of the Industrial Training Branch, Ministry of Colleges and Universities, administering the apprentice training program.

Notes: Figures in parentheses indicate fees charged; no public subsidy.

DNR = data not recorded.

**Table 12**  
*Post-secondary education channels – fiscal year 1969-70*

Channels	Enrolment	Man-days training (000)	Public subsidy (\$000)		Total	Per man-day	Per enrollee
			Canada	Ontario			
(a) (b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
(1) CAATs diploma programs	24,742	3,711	27,109	27,109	54,218	14.61	\$2,191
(2) Ryerson Polytechnical Institute	5,728	859	4,545	4,545	9,090	10.58	1,587
(3) Nursing	10,407	2,081	15,954	15,954	31,909	15.33	3,066
(4) Teachers' colleges	7,010	1,051	4,220	4,220	8,441	8.03	1,204
(5) Universities	105,235	13,681	136,550	136,550	273,100	19.96	3,546
(6) CAATs retraining	62,227	3,848	31,117	5,491	34,373	8.92	552
(7) Apprenticeship	19,259	4,141	5,482	729	6,211	1.50	322
(8) Short-term in-industry Training (STIT)	7,443	224	1,214	701	1,915	8.55	257
(9) CAATs (TIBI)	28,313	254	0	1,308	1,308	5.15	46
(10) CAATs (MDP)	9,160	46	0	13	13	0.27	1
(11) Private trade schools	18,119	DNR	0	0	(7,030)		388

*Man-days of training* – estimate: enrolment times 150 days for CAATs post-secondary, Ryerson, and teachers' colleges, 130 days for universities, and 200 days for nursing. Man-days for CAATs retraining, and STIT obtained from attendance reports. CAATs (TIBI and MDP) from project authorization reports. The man-days of training for apprenticeship is estimated at 215 days per year (both in-school and on-the-job, and unemployment is taken into consideration).

*Public subsidy* – see Table 11.

*Teachers' colleges* – enrolment reported above refers to the provincial schools only, as does public subsidy, both per day and per enrollee.

DNR = data not recorded.



major role in the occupational preparation of young people, that the numbers of youth were growing and were thus placing a responsibility on these institutions to respond to the need for training. Both the federal and provincial governments underwrote the major costs of the expansion of training programs.

It would be naive and simplistic to assume that it is either desirable or feasible to correlate, precisely, the output of educational institutions to the needs of the labour market. First, it is not possible to forecast in occupational detail the needs of the labour market over the three- to four-year time-spans involved in many educational channels. Many students, particularly in universities, do not undertake educational programs which relate directly to particular occupations, while some others undertake programs for personal reasons unrelated to expectations of securing employment. Nevertheless, recent experience, particularly with university education, bears witness to the fact that most students have expectations related to employment. The consequences of the absence of a relationship between employment needs and enrolments has led to significant declines in enrolment in many university faculties.

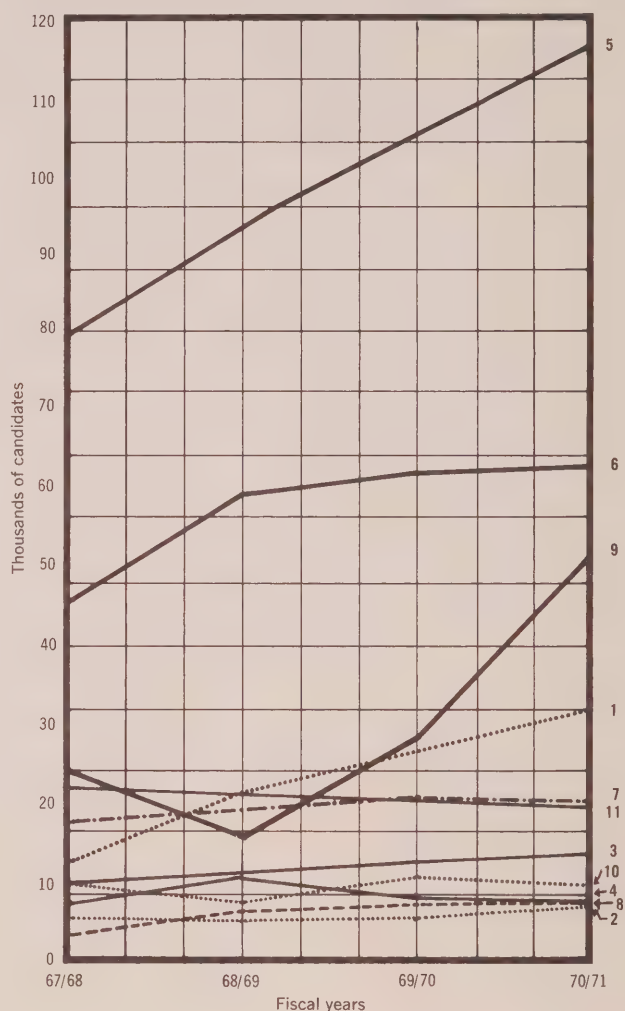
In fact, the educational system, with a good deal of pain for students, teachers, and administrators, apparently does adjust to the changing requirements of the labour market, but *after* the fact of change. It is clear from an examination of Figure 6 that enrolments, and subsequently output, do not respond in the short run to changes in the labour market. The ideal is to have enrolments and outputs respond to foreseeable future changes in the labour market, but is far from realization.

In the years examined here, 1967-68 to 1970-71, there has been some decline in the total requirement for skilled technical and professional manpower combined with a marked increase in its supply. There is no single adequate measure of variations in the requirements of the labour market. We have chosen the percentage of unemployment in the age-group 14-24 as our measure in Figure 6 because it is affected by developments on the demand and supply sides of the labour market for the age group most commonly represented in most of the educational and training channels examined here.

Figure 7 presents a rough approximation of the degree of sensitivity of the major educational and training channels to the needs of the labour market. By "sensitive with a lag," we mean that the enrol-

Figure 6

Post-secondary educational channels, 1967-71: Enrolments



- 1 CAATs diploma programs
- 2 Ryerson Polytechnical Institute
- 3 Nursing
- 4 Teachers' colleges
- 5 Universities
- 6 CAATs retraining
- 7 Apprenticeship
- 8 Short-term in-industry training (STIT)
- 9 CAATs (TIBI)
- 10 CAATs (MDP)
- 11 Private Trade Schools

Average annual percentage unemployment rate  
14-24 years age-group, Ontario\*

1968	1969	1970	1971
6.6	5.6	8.8	10.1

\*Statistics Canada, *The Labour Force*, Cat. No. 71-1001 (1971)

Figure 7

*Sensitivity of post-secondary programs to the labour market*

Program	Sensitive with lag	Perverse
CAATs diploma program		X
Nursing		X
Teachers	X	
Universities		X
Private trade schools	X	
CAATs retraining		X
Apprenticeship	X	

STIT and TIBI have not been included in this figure as they are in-industry training programs with employee trainees who do not seek work in the labour market following training.

ments appear to have responded to the labour market but with a lag of a year. Had the most recent year of university enrolments been included, it might have put universities in this category, but with a lag of more than a year. "Perverse" indicates an inverse response to changes in labour market needs. It is interesting to note that CAATs retraining, which embraces most of the federal manpower adult retraining program, responds perversely. It should be noted, however, that, in periods of increasing unemployment and as an economic stabilization measure,\* it is desirable to increase the level of adult retraining activity, at least for a time.

It will be seen that only three channels – teachers' colleges, private trade schools and apprenticeship – responded with a lag to changes in the level of labour market activity.

#### *b. Distribution of Activity Between Channels*

Information on "man-days of training" for 1969-70,† designed to provide a measure in real terms of the input of learning and teaching activity in the eleven training channels, is found in Figure 8. This measure relates student enrolment to program duration by multiplying enrolment by an estimate of average program duration in the various channels. An indication of the way in which these estimates have been prepared is provided in the footnotes to Table 12, p. 93. For the channels covered, it is estimated that there were 29,896,000 man-days of training in total. The position of training-in-industry programs

in the total educational and training effort of the province accounts for 4,665,000 man-days of training, or 15.6 per cent of the total. This relatively high figure is largely accounted for by apprenticeship, which includes as "man-days of training" all of the days worked by the apprentice in a typical four- to five-year apprenticeship. If only the days spent in school were counted, training-in-industry would account for only 4.2 per cent of the total. At the other extreme, university training accounted for 45.8 per cent of the total effort.

#### *c. Public expenditures on Post-secondary Channels*

How much public expenditure flows into each of these channels from the provincial and federal governments? Post-secondary, institutional educational channels\* are financed on a 50-50 basis through fiscal transfers from the federal government. CAATs retraining, apprenticeship and STIT are financed in considerable part under the Adult Occupational Training Act. The pattern, in terms of proportions of financial resources going to the various channels, is a function of the number of man-days of training multiplied by the costs per man-day. The data are presented in Figure 9. Only two per cent of public expenditures are directed to training-in-industry programs, whereas, at the other extreme, 65 per cent are directed to university programs. The substantial difference between the proportion of total man-days spent in in-industry training, and the public resources devoted to it, is accounted for by the substantially lower average costs per man-day of training-in-industry as compared to institutional training.

#### *d. Costs of Post-secondary Education Channels*

Data on costs per man-day, as shown in Figure 10, are affected by elements of non-comparability in the cost estimates. Nevertheless, they provide a rough indication of the varying public costs of the channels on a per unit of input basis of measurement. Only costs reflected in public expenditure are measured, not the real economic costs or those elements paid for by student fees or by employers in the case of in-industry programs. Costs borne by the public treasury vary a great deal, depending on the

\* See Chapter 12 p. 194 for a discussion of this policy.

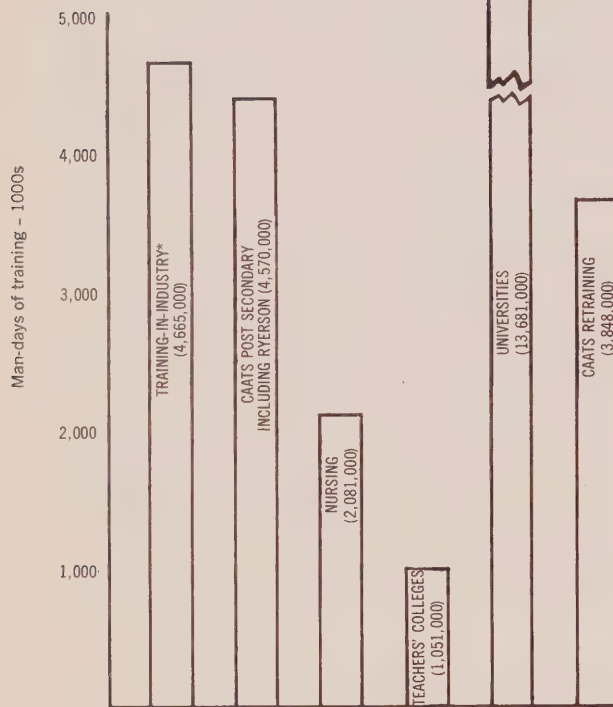
† Only information on the man-days of training in the academic year 1969-70 was developed by the Task Force.

\* Colleges of Applied Arts and Technology, nursing training, teachers' colleges, and universities.



**Figure 8**

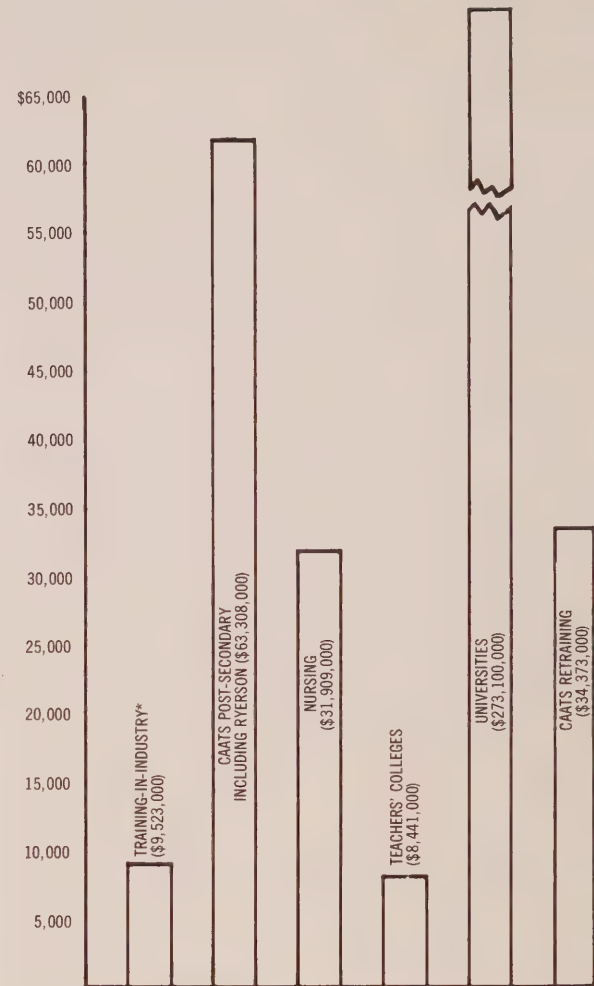
Post-secondary education channels, 1969-70;  
man-days of training



\*Training-in-Industry includes apprenticeship, Short-Term In-Industry Training (STIT), Training in Business and Industry (TIBI), and Management Development Programs.

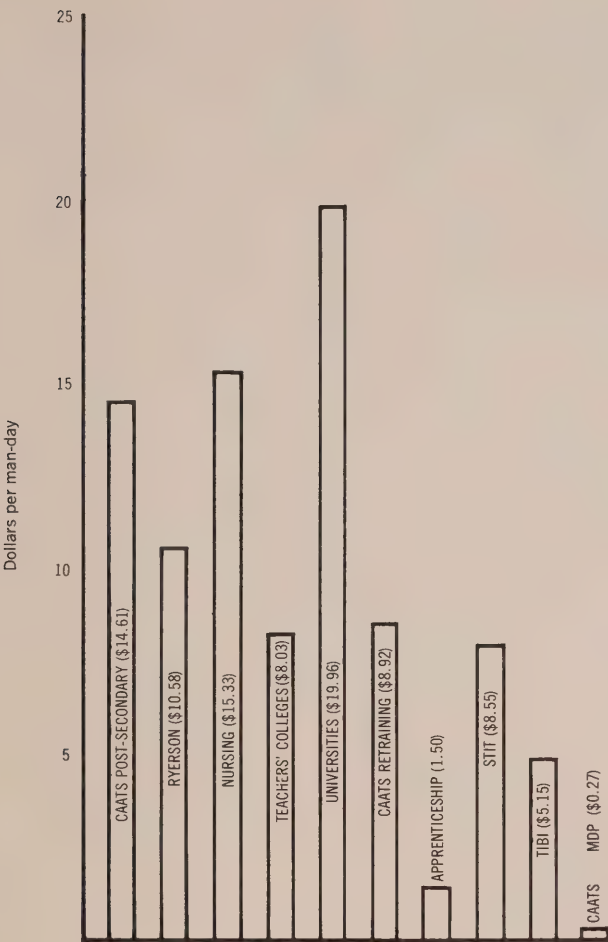
**Figure 9**

Post-secondary education channels, 1969-70;  
public expenditures

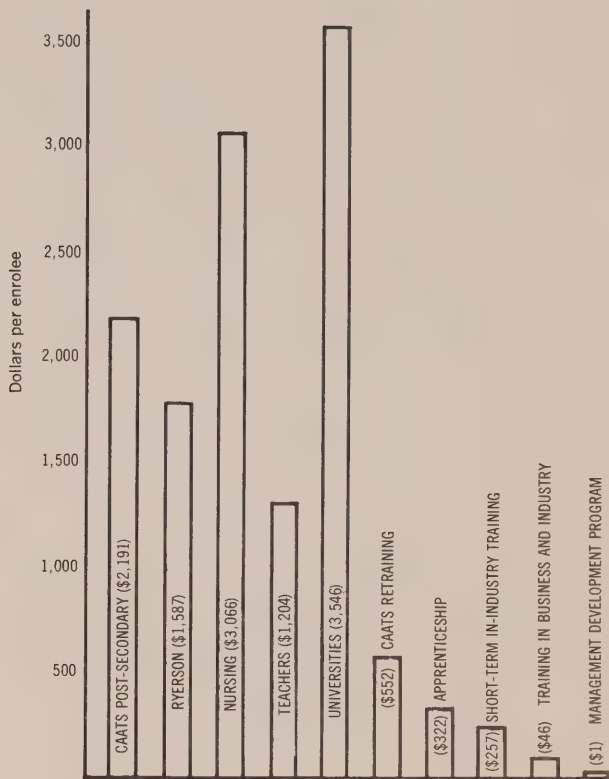


\*Training-in-Industry includes apprenticeship Short-Term In-Industry Training (STIT), Training in Business and Industry (TIBI), and Management Development Programs.

**Figure 10**  
Post-secondary education channels, 1969-70:  
public expenditures per man-day



**Figure 11**  
Post-secondary education channels, 1969-70:  
public expenditures per enrollee





channel, from a high of \$19.96 per day for university training to a low of \$0.27 per day of training for the Management Development Program\* and \$5.15 for TIBI. The elements which account for the variations in cost between channels are extremely complex. The estimates are, however, a starting point for analysis directed towards improved efficiency in the use of resources. Per man-day costs will never be uniform for each channel, nor should they be, as teachers' salaries, elements of capital costs, scale of the activity, number of students per project or course, and other variables would affect them even though there was a uniform degree of efficiency in the utilization of resources. The extent to which there are variations in the degree of resources utilization efficiency is of course unknown. However, the Task Force presents these data in order to underline the importance of investigating and evaluating relative efficiency in the various channels of post-secondary education in the province.

The data provide only a starting point for evaluations and decisions directed toward achieving a greater degree of efficiency in the use and re-allocation of resources among channels where comparable results can be achieved with more effectiveness and at lower costs. This consideration is particularly appropriate as a basis for deciding whether employer-centred training can be substituted for institution-based training in selected areas of occupational preparation. It can be seen clearly that the average per man-day costs for the various channels of employer-centred training are considerably lower than for institutional channels. It is evident that sound policy in the expenditure of public resources calls for the substitution of employer-centred training for institutional training, where comparable standards of training quality and sensitivity to individual and labour market needs can be maintained.

The data on costs per student enrolled, in the fiscal year 1969-70, are presented in Figure 11 and they show a greater degree of variability than do costs per man-day. This reflects the fact that cost per enrollee is a function of cost per man-day multiplied by the average length of training in each channel. Given the information available, it has not been possible to derive costs per graduate or per output for the various channels. Such information would be most

useful as another element in considering the allocation of resources among channels, for estimating the costs of program expansion, and for determining the cost-benefit implications of various programs.

Again, it can be seen that public expenditures per enrollee are much less, on average, for training-in-industry programs because of short durations in non-apprenticeship programs, and because of lower costs per day in these as compared to those that are institutional-based.

\* In principle MDP is operated on a self-financing basis by CAATs.

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*Part II – Future Guidelines for  
In-industry Training*



## CHAPTER 6

### *Government and industrial training: The Issues*

In the preceding chapter, the Task Force dealt with the objectives, dimensions and direction of manpower training programs presently underway in Ontario. It included a brief description of the various programs and presented statistical details on post-secondary educational training channels. These statistics suggested that sound public policy in the expenditure of public resources calls for the substitution of institutional training by employer-centred training, in instances where comparable standards can be maintained.

In this chapter, the Task Force will look at the directions and administrative practices of industrial training on both the federal and the provincial levels. It will point out the various areas where these programs fail to co-ordinate and the impact of this conflict on workers and employers.

#### **1. Federal-provincial relationships**

An observer of manpower training programs in Ontario is faced with bewildering variety, particularly when he is aware of sponsorship by both federal and provincial governments. The objectives, the mechanics of administration, the criteria for selecting trainees frequently overlap, but differ in a number of respects. Manpower training in Ontario, at least since 1966, has become progressively less coherent and co-ordinated as the two governments have acted largely independently of each other in the design and implementation of training programs. The provincial government has endeavoured to take advantage of substantial federal financing for adult manpower training, and because of this, provincial programs are partially linked with federal ones.

Until the establishment of the Ministry of Colleges and Universities (April 1972), two provincial government ministries (Labour and Education) were active in areas of manpower training. Further fragmentation was developed in the winter of 1971-72 with the introduction by the federal government of a new training-in-industry program called "Training-on-the-job" (TOJ), a program initiated outside the framework of the Adult Occupational Training Act of 1966. This new federal initiative further stimulated the provincial government to design competitive programs to reduce unemployment in the winter months.

The structure of manpower training programs in Ontario was much more coherent and co-ordinated in the years from 1961 to 1967, under the umbrella of the Technical and Vocational Training Assistance Act of 1960. Under this federal Act, most programs in the area of vocational, industrial, and manpower training were operated on a cost-shared basis under agreements negotiated between the provincial and federal governments. This unifying context kept program competition to a minimum, while the administration, as distinct from the financing, of training programs was wholly the responsibility of the provincial Departments of Education and Labour.

A major change in direction and the development of fragmentation occurred with the enactment of the Adult Occupational Training Act of 1967 (AOT Act). Under this Act, the federal government, through the Department of Manpower and Immigration, unilaterally determines the objectives of its training programs, the basic administrative procedures to be followed and the selection of clients (except in the case of apprenticeship). As well, it purchases courses from Colleges of Applied Arts and Technology (CAATs) through the provincial Ministry of Colleges and Universities. Purchases of apprenticeship programs and short-term training-in-industry programs were made through the Department of Labour (until April, 1972).

#### *a. Objectives of Federal Manpower Training Programs*

An analysis of the objectives and the administrative problems of manpower training in the province will focus primarily on government-assisted, training-in-industry programs because of our terms of reference. To provide a context for this analysis, the explicit goals of manpower policy, and vocational training more generally, will be reviewed briefly. We begin with federal programs as they have significantly conditioned most provincial programs. The examination of manpower training policy, at least from an economic and social point of view, as distinct from that of individual trainees and employers, can be directed to three economic or social objectives: economic growth, social equity and economic stabilization. The growth objective can be met through training insofar as it facilitates a more productive labour supply and helps to provide workers for the right jobs and at the right times. The equity objective includes the goals of reducing poverty and

regional and other disparities in the distribution of income. The stabilization objective concerns the reduction of unemployment and the creation of a more favourable relationship between prices and unemployment.\* In practice, these objectives overlap in the implementation of particular training programs. It is, therefore, more a matter of the emphasis on the particular group trained that is reviewed to determine the primary objective of a program.

The initial objective of manpower policy, and in particular of training policy developed by the federal government in 1966, was largely in terms of the economic growth objective. A quotation from the Honourable Allan MacEachen illustrates this:

“The main objective of the Department [of Manpower and Immigration] is to further the economic growth of Canada by endeavouring to ensure that the supply of manpower matches the demand qualitatively and geographically.”†

With respect to training, the Department of Manpower and Immigration listed its objectives in the Annual Report of 1969-70 in the following ways:

- “(1) To increase the skill level of the labour force through adult occupational training, thereby providing qualified manpower for the Canadian economy . . .
- (2) To help workers and employers adapt to technological and other change . . .
- (3) To help reduce fluctuations in employment and shorten the period of unemployment.

Training can help to meet all of these objectives. In the minds of the drafters of the Departmental objectives, the primary focus of adult occupational training appears to have been on increasing the skill level of the labour force.

In the past couple of years, the emphasis of the federal adult occupational training program has been shifting away from a primary emphasis on the growth objective to an increasing emphasis on the equity objective. In an article in *Canadian Welfare*

\* These objectives are discussed further in *Economic Council of Canada, Eighth Annual Review (September 1971)*, p. 89.

† *Ibid.* p. 96.



the Hon. A. MacEachen stated: "We are constantly striving to bring the policies of the Department within the reach of the underemployed and the working poor . . . of 301,000 adults trained last year, some 50% were below the poverty line."\* The Hon. Otto Lang, the immediately following Minister, when he discussed the results of training for 1970, indicated that Canadian Manpower Training Program (CMTP) was a significant federal program aimed at the elimination of poverty, and that its impact was directly centred on the poor.

The objectives of the "Training-on-the-job Program" introduced in the winter of 1971-72 are outlined as follows:

(1) those with an attachment to the labour force and actively seeking work, with particular emphasis on those for whom lack of recent work experience is a barrier to employment, including youth, women re-entering the labour market, welfare recipients who have not worked for some time, etc. . . .

(2) Subsidiary categories of trainees are those who have completed similar vocational training courses under the Canada Manpower Training Programs and the trainees must be persons likely to derive continuing benefit from training and work experience in terms of increased employability and earning capacity. Thus, the objectives of this program are on social equity combined with economic stabilization.

Information provided to the Task Force by the Department of Manpower and Immigration suggests that the trainees helped most by this program appears to be youth who could not benefit from regular OTA programs because they fell into the "three year gap."

The AOT Act (1967) in effect denied training (at least in terms of support through allowances) to recent entrants to the labour force, i.e., unemployed youth who had graduated in the past three years. The rationale for this policy was that the training and education of youth is a provincial responsibility and the federal government did not wish to attract potential students out of the school system through generous training allowances. In fact, this policy left a sizeable gap (popularly known as "the three year gap") in the federal training programs in terms of

preparing young persons to meet the future needs of the economy. This gap is being largely closed by a reduction of the period of labour force attachment from three years to one year by an amendment introduced to the AOT Act in the Parliament of Canada in May 1972.

The Honourable Bryce Mackasey, in 1972, appeared to shift the objectives of the federal training program back to the original economic growth concept. In his own words: "I have said . . . that welfare connotation to manpower should be reduced to a minimum. The whole concept of manpower, as I understand it, through our training program, is to produce skilled people for the jobs that an industrial policy . . . will create five or six years down the line. . . ."

The basic point of this recital of the objectives of federal manpower training policy, in terms of the categories of people to be trained, is that the objectives of the federal government appear to have been continually changing. The difficulty is that federal policy, regardless of whether it is sound or unsound in the light of changing needs on a Canada-wide basis, often conflicts with provincial priorities and policies. More often provincial policies simply seek to compete with, catch up with, or adapt to federal policies in an effort to capture as large a proportion of federal funding as possible.

#### b. Objectives of Provincial Manpower Training Programs

An examination of the objectives of provincial training programs suggests that they are either stated in more specific terms or in very general social and economic terms as compared to federal statements. Usually, the rationales and objectives are not made as explicit by Ministers or officials in public documents as is the case with federal programs.

The Department of Labour Act assigned what can be construed as a training responsibility to the Department in the following terms.

Under the Blueprint for the Department of Labour (1965) one of the responsibilities of the Department was "to increase employability of our young people

\* Canadian Welfare, (News). (Vol. 46, No. 2 (March-April 1970) p. 18.

\* Canada, House of Commons, Minutes of Proceedings and Evidence of the Standing Committee on Labour, Manpower and Immigration (May 3, 1972), p. 5:21.

through on-the-job training . . .”<sup>\*</sup> It is interesting to note here that in terms of priority, the emphasis is on the individual and particularly youth rather than on economic and social objectives.

The Ministry of Colleges and Universities’ (formerly Department of Labour’s) Short-term, In-industry Training Program (STIT) emphasizes meeting industry’s immediate manpower requirements. STIT helps to finance training-in-industry with federal support under the AOT Act. It is divided into two components: a “vestibule” and a “training-on-the-job” component. The program may involve training for the unskilled, for occupational upgrading or for retraining purposes.

Preference is given to projects which hire unemployed members of the labour force, as this is one of the priority criteria for federal support. The training projects are aimed at unskilled workers, or those who may have jobs terminated because of changes in production methods. The basic objectives of this program, while supported in part under the AOT Act, differ from the objectives of the federal government’s new “Training-on-the-job Program” which puts emphasis on longer term unemployed and more marginal workers. It differs also in substance from training-in-industry sponsored under the AOT Act, insofar as it includes both training-on-the-job and vestibule training. The AOT Act Amendments of May 1972 have removed the previous training-on-the-job restriction of the Act.

Apprenticeship programs in Ontario, which are well defined in their objectives and methods, have not been affected by federal programs to a significant degree and thus do not raise problems of conflicting and competing objectives. The federal government has simply financed a portion of this provincial program by paying 100 per cent of the administrative and tuition costs for classroom instruction, and paying AOT Act allowances to trainees during the in-school parts of their apprenticeship.

The Training-in-Business-and-Industry Program (TIBI), operated from the CAATs, also helps to finance training-in-industry programs. The objective of this program is to assist employed workers in business and industry improve their economic positions, both as employees and as members of the labour force. An explicit objective is to assist employers in becoming more competitive and thus

helping them meet the growth objectives of the economy. Instruction is through day or evening classes, either at a CAAT or on company premises. Courses are designed to have a substantial theoretical content and thus are frequently appropriate for classroom teaching. In some occupations, training-on-the-job may be provided as a supplement to classroom instruction. The courses are designed to increase a worker’s productivity and mobility and therefore they cannot be courses of interest to only one company. Financial involvement of the Ministry of Colleges and Universities is up to one-third of the total value of the course and involves no financial contribution under the AOT Act. This program in effect constitutes a specialized extension activity from the base of the community colleges to meet the needs of local industry.

In the spring of 1973 the following programs involving either federal or provincial government support, or both, could be identified:

- (1) STIT initiated by Industrial Training Branch (ITB) (partially financed by the AOT Act)
- (2) Modular Training Program initiated by Industrial Training Branch
- (3) TIBI initiated by the Applied Arts and Technology Branch (AATB)
- (4) Apprenticeship programs administered by the ITB
- (5) Training-on-the-job Program initiated by the Department of Manpower and Immigration.

This brief survey indicates that the objectives of provincial in-industry training programs are often “defined” somewhat differently, depending on whether they are initiated by the federal or provincial government, and on the provincial government department in which they were originally designed and implemented. Little systematic consideration has been given by the Government of Ontario (or by the federal government) to the rational allocation of resources between training-in-industry and institution-based, manpower training programs. This is essentially because decisions concerning programs emanate from different levels of government and from different departments within the provincial government (at least up to the time of the establishment of the Ministry of Colleges and Universities).

<sup>\*</sup> Ontario, Department of Labour, Annual Report (1965).



No systematic efforts are made to determine gaps in programs in terms of clients or employers served, or indeed in terms of the labour market and manpower development needs of the provincial economy. Programs often tend to be initiated as responses to programs of the federal government as a means of securing program funds or, in a few cases, as a response to new social or economic needs. Sometimes programs have been launched as a competitive political response to the initiation of programs at the federal level. At the provincial level, there has been substantial fragmentation of programs in the training-in-industry sector.

Clearly, such a variety of overlapping programs cannot possibly lead to an appropriate place for training-in-industry, in terms of its economic impact, as compared to the appropriate role for institutional training, or for that matter to an appropriate development of programs between training-in-industry and training institutions in particular occupational fields. No single or co-ordinated organizational context was available in the past to reach such decisions on a systematic basis within the province. Such a context now exists within the responsibility of the Ministry of Colleges and Universities. Similarly, with federal and provincial governments both involved, no adequate form of joint consultation and decision-making has so far evolved which could lead to a rational allocation of resources between training-in-industry and institutional training, or to an articulation of programs which provide an adequate response to the needs of individuals, the economy or employers.

### *c. Federal/Provincial Issues in the Implementation of Programs*

The effective delivery of training services to employers and to workers within industry depends on meeting a number of requirements which are largely absent in the implementation of government-assisted training-in-industry programs in which both federal and provincial agencies are involved.

The effective implementation of programs requires certain prerequisites:

- (1) that they have common and specific objectives;
- (2) that the administrative responsibility of each government agency concerned is clearly defined;

- (3) that there is consistent integration of the administrative process in relation to the responsibilities of each agency;

- (4) that there be clear-cut and orderly communication regarding changes in administrative procedures between the agencies concerned.

These simple administrative requirements for the effective delivery of training services to employers have not been met. To a great extent the fault lies in the largely unilateral approach taken to program administration in this area by the Department of Manpower and Immigration since 1970.

From 1967 to the spring of 1970, problems of efficient program administration were not too serious, largely because the ITB had introduced a training-in-industry program under the Technical Vocational Training Assistance Act of 1961 and had well established administrative procedures and selection criteria for the delivery of programs. The Department of Manpower and Immigration, at the operational level in the Ontario region, acted largely as a reimbursement agency for the training-in-industry programs generated and developed by the ITB, with the exception of those parts of the program such as training-on-the-job of workers who did not meet AOT Act criteria for reimbursement in the projects developed by the ITB. A joint agreement was signed by the employer, the Minister of Manpower and Immigration and the Ontario Minister of Labour setting forth the conditions under which each industry training project was to be administered. The forms and procedures, used with modifications to make them acceptable to Manpower and Immigration, were largely determined by the needs of the provincial program. In effect, the program was operated under an informal agreement between the ITB and the Regional Office of Manpower and Immigration.

In April 1970, the Ontario Region of Manpower and Immigration spelled out criteria, policies and procedures for federal participation in the program and federal officials began to take a more active part in the development of training projects. Late in 1971, the Department of Manpower and Immigration took an initiative which, in effect, sought to gain control over the training-in-industry program except for reliance on the ITB for the development of training

curriculum. This was designed, in part, to make the Ontario program, in content and administrative procedures, conform to the federal program in other provinces not having provincially supported training-in-industry programs. This was perfectly legal under the AOT Act because the Department of Manpower and Immigration is empowered, unilaterally, to develop and establish training projects with employers, as specified in Section 6 of the Act. The only restriction is contained in Section 6 (4) of the Act which states:

“The Minister shall not enter into a contract under this section with any employer . . . unless he is satisfied that the content of the occupational training courses described in that sub-section has been the subject of consultation by the employer with the Government of the Province in which the course is operated or to be operated.”

This section requires “consultation” but not agreement on the part of the provincial training authorities and leaves it up to the employer to do the consulting rather than the Department of Manpower and Immigration.

The Procedures proposed by the Department of Manpower and Immigration amount to the assumption of responsibility for all phases of program development and administration, except for the development of training curricula through consultation between the employer and the ITB. This distribution of responsibilities ignores the primary jurisdiction of the province over training, whether it be conducted in industry or in schools.\* It further ignores the considerable experience and capacity which the province has developed through the ITB for delivering financial support and training services to employers. In short, the ITB should be the implementing arm of federally supported training-in-industry programs.†

It is clear that unless there is a change of policy, the Department of Manpower and Immigration considers itself to be the agency with primary responsibility, while the province, through the ITB, is responsible only for technical support services in the area of curriculum development. This *de facto* assumption of responsibility for the development and administration of training-in-industry projects

under this program, by the Department of Manpower and Immigration, has been occurring in recent years. At one time, nearly all projects were initiated by the ITB. Recently, well over 50 per cent of the projects are initiated by local Canada Manpower Centres (CMC) and come to the ITB's attention via the Ontario Regional Office of Manpower and Immigration. Standard procedures in fiscal 72-73, once a request was made, called for a joint visit by an ITB Development Officer and CMC Officer to the employer. Usually approval of the project resulted from the agreement among these representatives. In some cases, however, CMC officers made commitments for approval before consulting the ITB. Officers of Manpower and Immigration monitored most training projects from a financial and procedural point of view.

A significant initiative, both in terms of conflicting objectives and administrative relationships between federal and provincial programs, was taken with the introduction of the “Canada Manpower Training-on-the-job Program” (CMTJP) by the federal government in the winter of 1971-72. The program was introduced outside the framework of the AOT Act after minimal consultation with provincial authorities. The Manpower and Immigration Department provided facilities for the review of employer training proposals by an officer of the ITB; however, this officer was withdrawn because he was doing little more than rubber-stamping projects on federal programs. The program basically supported training-on-the-job which was explicitly prohibited by the AOT Act. Apart from the presence of this provincial review officer, the program was administered by the Department of Manpower and Immigration through direct contact with employers and through referral of unemployed workers for employment under the program by CMCs. The program was introduced by the federal government as part of a broader series of projects to create employment in October, 1971. At first glance, it is difficult to fault the program on the ground of the need – in the face of over 6 per cent unemployment on a seasonally adjusted basis – to create employment and training opportunities.

\* Discussion of the constitutional aspect will be found in Chapter 7.

† This point will be developed with recommendations in Chapter 7 of the Report.



The objective of the CMTJP is stated officially as follows: "The program aims at encouraging employers to prepare for future expansion in a firm or industry by training unemployed or employable workers for such future jobs in actual work situations."\* The program reimburses employers for such training by direct payments amounting to 75 per cent of the wages paid to trainees, or through a write-off of wage costs at an appropriate level in taxes. It is understood that more than 90 per cent of employers have chosen the direct payment method of reimbursement. The program has appropriate protections concerning training in transferrable skills, the prospect of continuing employment for those trained, and the guarantee that regular employees are not on lay-off.

Amendments introduced in May 1972 to the AOT Act have reduced the so-called "three-year gap" for allowance payment eligibility for trainees to one year and, most importantly, from the point of view of training-in-industry, have removed the prohibitions in the Act against training-on-the-job or in skills useful only to a single employer. The Minister, the Honourable Bryce Mackasey, in testimony before the Standing Committee on Labour, Manpower and Immigration, stated his intention to put through amendments to the legislation "that . . . would mean that on-the-job training would be a regular part of the Manpower program; as it is now, it is only part of the special employment projects of the winter."†

The implications of this amendment to the AOT Act, and of the intention to continue CMTJP, is a major development which has the potential to affect in a very substantial way the development of government-assisted, training-in-industry programs in Ontario. These amendments to the AOT Act mean that the federal government can make agreements with any employer in the province to subsidize, through reimbursement of wages and the payment of training costs, any kind of occupational training. There are no legislative limits on the amount of wage subsidization (the precedent is 75 per cent for the current on-the-job training program). Nor are there any restrictions on the kind of training sub-

sidized or on the kinds of enterprises to which the support is provided. In effect, it means that the federal government has pre-empted the field of training-in-industry in the provinces with the single restriction, according to clause 6 (3) (2) of the proposed amendment, that the Minister is "satisfied that the content of the occupational training course described in that sub-section has been the subject of consultation by the employer, or by the group or association, as the case may be, with the government of the province in which the course is operated or to be operated."

There is no necessity for approval or agreement on the part of the government of the province, but simply a requirement that there is consultation with the employer regarding the content of the program. The constitutional implications of this particular posture by the federal government will be developed in Chapter 7 of the Report.

If the federal government can subsidize any kind of occupational training-in-industry to any extent it chooses, a mockery can be made of provincial efforts to define and implement a sound policy of financial support for training-in-industry. It means the government of the province is no longer in a position to allocate resources between institutional training and training-in-industry on grounds of efficiency, or to meet specific public objectives in the province. Given this legislation, criteria developed in Chapter 8 of the Report as a basis for the public financial support of various kinds of training-in-industry can have no real meaning in terms of implementation without federal government agreement. In terms of public policy objectives, Chapter 8 points out that financial support of private enterprise is valid only if public benefits flow from the training which could otherwise not be provided by employers acting on their own initiative. Any other more liberal policy would simply amount to the subsidization of employers to undertake training activities which they would otherwise have undertaken in any event.

Training-on-the-job is certainly a valid and significant element of occupational training within industry. However, in terms of sound public policy, expenditures for training-on-the-job, if used in a widespread and indiscriminate way, can have very serious economic side effects. It leads to the production of saleable output and can therefore reduce the production costs for some employers at public expense, depending on the extent and character of subsidization. If undertaken on a significant scale it

\* Canada, Department of Manpower and Immigration, Fact Sheet, Canada Manpower Training-on-the-job Program.

† Canada, House of Commons, Minutes of the Proceedings and Evidence of the Standing Committee on Labour, Manpower and Immigration, Issue No. 5 (Wednesday, May 3, 1972), p. 5:10.

can affect the competitive position of one enterprise vis-à-vis others in the same industry and in different regions of the country. The competitive status of goods entering into international trade can be questioned. It can be used as a disguised technique for subsidized industrial development. It can have impacts on comparative wage rates and wage costs, and thus affect the competitive position of one group of workers in relation to others.

It was for reasons such as these that in 1967 the AOT Act expressly forbade the financial support of training-on-the-job by the federal government. Thus, while the objectives of the current CMTJP may be desirable (although this too can be questioned), the side effects are undesirable on both social and economic grounds. The desirability of the program is therefore seriously undermined on grounds of sound public policy. It is abundantly clear on the basis of the past history of federal-provincial relationships, that if training-on-the-job programs are introduced with substantial federal subsidies, and without meaningful consultation or controls by provincial agencies, that existing or new training-in-industry programs sponsored by the province will find little or no place in the framework of provincial manpower development. In effect, they will be driven out of business because of the competition of much more liberal programs of financial support.

As a further example of the policy conflicts resulting from the largely unilateral approach of the federal government in generating CMTJP, one could cite its probable impact on the apprenticeship program in terms of equity. CMTJP, to use the words of the Department of Manpower and Immigration's Fact Sheet, is designed to encourage "employers to prepare for future expansion in the firm or industry by training unemployed but employable workers for such future jobs in actual work situations."\* Potential apprentices fit this description of objective. Why should employers who contract to take on apprentices not be paid 75 per cent of the apprentices' wages and have the other costs of apprenticeship reimbursed by government? This example indicates that, in terms of policy, the financing of any aspect of training-in-industry as a result of this federal initiative can introduce serious inequities into any provincial effort to define and support sound policies in the area of training-in-industry.

Our Report has not dealt with the areas of actual and potential conflict in other parts of the AOT Act program concerned with purchasing institutional training from the province or with the administrative issues and problems involved. While there are different problems in this area, we have focused primarily on training-in-industry and on the interface between industry and other training programs which supply manpower to industry.\*

This division of governmental responsibilities and its disruptive effect on various programs and their financing causes complications and frustrations for the clients of these programs, employers and members of the labour force. The Task Force's survey of the attitude of employers towards training-in-industry reveals that senior managers in Ontario usually do not make distinctions between the responsibilities and programs of the two levels of government. The distinctions as to coverage, financial support and objectives of programs are not clearly understood by most of the managers who make decisions on whether to introduce training programs with or without government financial support. Officials who are closer to the training programs and concerned with their implementation are more aware of these distinctions, particularly if they have dealt with government agencies in administering government-financed programs. These officials are understandably impatient with irrelevant distinctions, differences in procedures, duplication of activities and with the effort to find their way through the "bureaucratic jungle." Employers would naturally prefer to deal with a single government authority and with a single agency responsible for the administration of government-supported training-in-industry programs. They would prefer to have a clear-cut and understandable set of objectives and to have stability in the coverage and financial support of programs so that they could plan operations, commitments to employees and the meeting of manpower requirements on a systematic basis. As of summer 1972, an employer who is "shopping" for a government-assisted training program can turn to the Department of Manpower and Immigration's training-in-industry program, financed under the

\* For a full discussion of administrative and policy problems related to the Federal-Provincial relationship under the AOT Act, see J. Stefan Dupre, et al., *Federalism and Policy Development: The Case of Adult Occupational Training in Ontario* (University of Toronto, 1973) esp. Chapters 5 and 6.

\* Fact Sheet, Training-on-the-job Program, Department of Manpower and Immigration (undated) para. 1.



AOT Act, to the Industrial Training Branch, for short-term training-in-industry programs covering vestibule and on-the-job training; or to the ITB for modular training (he, of course, deals with ITB in the administration of registered apprenticeship programs). He can also turn to his local community college for help from their extension services for a variety of training programs which may fit his needs. In short, there is a bewildering array of government financial supports and technical services available to him at each level of government, for assistance in the development of his training programs.

From the point of view of individual members of the labour force, they are only able to secure training in an employer's training program if they are selected by that employer. This means that individual trainees are largely selected in the light of the future needs of the employer rather than in terms of the needs of the individual. The exception to this approach is where an employer training program is used to train unemployed workers, who are placed by CMC's with employer training programs under the AOT Act or CMTJP. In this case, the worker to be trained (provided he is selected by the employer involved) must meet the criteria followed by CMCs in terms of labour market needs or the needs of the worker.

## **2. Overlap between programs at the provincial level**

Two principal training-in-industry programs at the provincial level are STIT operated by the ITB and TIBI operated by AATB from the CAATs. As we have seen, STIT is heavily influenced by the fact that it is financed under provisions of the AOT Act and suffers from problems of conflict at both policy and administrative levels between federal and provincial agencies. TIBI, on the other hand, is financed by the province and is integrated with CAATs and their capacities to provide training services to local employers.

The occupational areas covered by these programs can be the same, although in practice, the distribution of training is more heavily on the managerial and white collar occupations in the case of TIBI, and on the blue collar occupations in the case of STIT. The emphasis in the TIBI Program is on theory and related occupational knowledge, while in STIT it is on work practice training. The latter program is

much more heavily financed from the federal treasury and partly from the provincial treasury in terms of financial support for trainee wages and training costs of employers. Employers and workers can only take advantage of the STIT Programs if they fit the eligibility criteria established by the AOT Act and the guidelines of the Department of Manpower and Immigration. The TIBI Program makes a varying contribution to reimbursing employer training costs, depending on the industry and the availability of budget resources for the program in each community college area. The TIBI Program is more flexible in serving employer needs and in combining institution and employer-based training in a single project than is the STIT Program. The latter provides more financial support to employers to provide training for their own employees or for unemployed workers referred to employer-centred programs by CMCs.

Clearly, while there should be a variety of employer-centred programs to meet differing needs, employers should not be faced with options concerning either the degree of financial support received (depending on which government training program is offered to them) or the government agency they choose to go to in seeking financial and technical support. Sound public policy and considerations of equity call for uniform levels of financial support for the meeting of specific public objectives through employer-centred training. The level of support can vary but it should vary in relation to the nature of the public objective being met.

The Task Force, therefore, cannot find any basis for recommending the continuance of two programs which have differing financial criteria for the support of employer-centred training. In Chapter 8 we spell out the criteria on which we believe financial support for employer-centred training should be based, whether such support be provided by the federal or provincial governments or a combination of both.

On the program implementation side, there have been historical reasons for the development and continuation of competing and overlapping field forces concerned with training-in-industry programs in the province. With the transfer of the ITB from the Ministry of Labour to the Ministry of Colleges and Universities, a single entity can now be developed for the provision of training services, both financial and technical, to the employers of the province. The Task Force will make recommendations to this effect in Chapter 7.

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## CHAPTER 7

### *Objectives and organization*

#### 1. Objectives

Our Report has reviewed the objectives of industrial and manpower training programs in several contexts. In Chapter 2, on the historical background, the objectives of public training institutions and programs as they have evolved were outlined. In Chapter 3 the aims of training systems in Germany, Sweden and the United Kingdom were examined. The goals of current training programs in Ontario were set forth in Chapter 5, while in Chapter 6 the lack of co-ordination between federal and provincial training agencies in the establishment of objectives was discussed along with the shifting of emphasis of federal objectives in recent years.

The language used to define the aims of training has varied greatly as has the apparent emphasis on different training areas. In some cases, employers' needs for skilled manpower are stressed, in others the relation between trained manpower and industrial development, while in still others the stress is on the individual and his career and vocational development needs. In the Introduction we pointed out that the terminology used to describe training programs which involve similar knowledge and skill acquisition techniques changes depending on the objective. *Industrial* training relates to the preparation of workers or potential workers to meet industry's occupational requirements. *Vocational* training emphasizes the needs of the individual for occupational and career preparation to meet his personal economic objectives. *Manpower* training relates to the public policy objectives of economic efficiency, growth and social equity.

In fact, these objectives are not mutually exclusive, and most publicly-sponsored training contributes to the realization of all of them. In most cases, the techniques and institutions used are similar and the graduates of the programs have common characteristics regardless of the terms used to describe their programs. It is for these reasons that this Report sometimes uses the terms "industrial," "vocational" and "manpower" training interchangeably, although in other cases the context of the discussion indicates that they have more specific meanings.

Under today's conditions, it is clear that training objectives should emphasize economic or social public policy objectives as well as the needs of the individual members of society. Almost any training activity, whether taking place within an institution or in industry, will make some contribution to the



realization of all these objectives. The criterion for decision-making on objectives is the desirable mix and emphasis of the objectives. As a basic point of departure for many of the recommendations made later in the Report, we shall attempt to outline our views on this issue.

The public policy objectives of manpower policy as well as of manpower and industrial training, which is the most significant element of it, are usually defined in terms of growth, equity, and stabilization.\* The Task Force accepts these objectives as valid. Industrial and manpower training can and does make a significant contribution to productivity increases and hence to long-run economic growth. It can provide new opportunities for disadvantaged groups and those in depressed areas and can thus help to improve social equity. Economic opportunities for some members of the labour force, as compared to others, will be improved, depending on the selection of trainees. Training can also play a role in reducing unemployment and in moderating inflationary pressures in the labour market. The training of workers to alleviate bottlenecks will increase the output of the economy and will moderate cost pressures, as well as provide increased employment opportunities.

While these objectives are interrelated – for the achievement of one will have effects on the others – the degree of emphasis placed on one or other in the implementation of training programs is the significant policy point. The Task Force believes that the economic growth objective should have primary emphasis, for it is from adequate and sustained growth that the social benefits of increasing income and employment and improved living standards flow. Further, it is only in a labour market characterized by employment expansion that the equity objective of training providing improved employment opportunities for the disadvantaged can be achieved. In periods of slack and high unemployment, the training of disadvantaged persons will slightly improve their employment prospects, but only at the expense of more qualified workers who are also unemployed. Significant thrusts to train competitively disadvantaged workers are desirable, but they can be implemented in a substantial way only at times when employment is expanding and job vacancies are plentiful.

The use of manpower training to facilitate economic stabilization requires that the scale and mix of training be varied cyclically. The unemployed should be trained during the downturn to provide a platform of skills to ease inflationary labour market pressures during periods of rapid employment expansion. The volume of training should, therefore, increase during the downturn and ease off in the expansion phase. However, this cyclical variability is applicable only during relatively short recessions and not during a prolonged period of high unemployment, such as has been characteristic of recent years in Canada.\*

Traditionally, professional educators have defined educational (including training) objectives in terms of developing the full potential of the individual. Vocational education has stressed career development needs. For a successful outcome, training must tap the motivations of individual trainees and be voluntarily entered into and sustained. Positive motivation depends on the capacity of the training activity to meet the needs of trainees as they define them. Thus the economic and social public policy objectives of training programs can be met only if they have parallel capacities to meet the needs of individuals. In most cases, however, public policy objectives and those of individuals will be coincident; if they are different, the needs of society must be paramount in programs which use public resources for training purposes.

Ideally, industrial and manpower training should be developed in ways which enable individuals to meet their career development needs, so training should therefore be available when wanted and needed by individuals. In addition, there should be adequate means for their income support during temporary absences from the labour force.

Individuals, rather than public officials, should ultimately decide on the kinds of training to be undertaken, for it is the trainees who suffer the consequences of bad decisions in the long run. Such individual decisions, however, must be tempered by the needs of the economy, by the limitations of public resources and by personal capacities to undertake particular kinds of training.

\* For a discussion of these objectives see Economic Council of Canada, *Design for Decision-making – An Application to Human Resource Policies, Eighth Annual Review* (Ottawa: Information Canada, 1971), pp. 89-95.

\* For a further discussion of the use of manpower training for economic stabilization, see pp. 194-197.

The objective of social equity requires that training services be available to those most in need of help, because they have handicaps to be overcome if they are to be competitive in the labour market. Training resources devoted to the realization of this objective will not always be used as efficiently, in cost-benefit terms, as those devoted to the training of more favoured members of the labour force. Nevertheless, emphasis should be given to this goal, particularly at those times when the state of the labour market allows for training to provide expanding opportunities for those who would otherwise be unable to compete for jobs.

A significant, but neglected, constraint in the setting of manpower training objectives is the labour market context in which the public training activity takes place. The benefits of manpower training only accrue to society and the individual if there are job vacancies which cannot be filled by qualified candidates already on the market. Thus the mix of objectives and the scale of manpower training activities is constrained by the state of the labour market.\*

The mix of objectives, rather than being fixed, should be flexibly adapted to the labour market situation. The Report makes a number of specific organizational and methodological recommendations designed to achieve flexibility in the setting of objectives and the scales of training.

Because of the influence of federal financing on manpower and industrial training, it is desirable for objectives to be jointly determined and reviewed by the training agencies of the federal and provincial governments. Chapter 6 reviewed the problems which have arisen from a lack of adequate federal and provincial consultation and co-ordination in industrial training. Recommendations for achieving better consultation on objectives and more efficient co-ordination in their implementation will be made in this chapter.

The validity of current objectives should be reviewed periodically on the basis of both program performance evaluations and forecasts of labour market needs. Public resources can be wasted, not only because program performance is ineffective in meeting objectives, but also because objectives are unrealistic in terms of labour market and institutional constraints. Thus, an effective alignment of

program performance and objectives often requires both the adjustment of programs, and their mix, as well as changes in their elements and the ways in which they are managed.

This Report makes recommendations on administrative organization and accompanying technical support which we believe will facilitate the effective meeting of these objectives. Further, our recommendations are designed to permit the Government of Ontario to make sound decisions on the allocation of resources between methods of training and training institutions which will permit the implementation of training programs in ways which conform to the criteria of flexibility, sensitivity to needs, and efficiency.

## **2. Organizational structure in the Government of Ontario**

### *a. Central Co-ordination of Decision-Making*

A significant step was taken in April, 1972 to provide for the co-ordination of in-industry training programs in Ontario. It was the creation of the Ministry of Colleges and Universities, which is responsible for all post-secondary training and educational programs financially supported or controlled by the government. Organizational change involved the transfer of the Industrial Training Branch (ITB), together with its responsibilities for regulated apprenticeship, compulsory certification of tradesmen, Short-term In-industry Training (STIT), modular training and its associated functions, from the Ministry of Labour to the Ministry of Colleges and Universities. Early in its deliberations, the Task Force had come to the conclusion that all Ontario government activities relating to in-industry and employer-centred training should be placed within the framework of one government authority to ensure effective program co-ordination and to provide for a more rational allocation of resources. The Task Force, therefore, approves of the transfer of the ITB to the Ministry of Colleges and Universities.

As a result of the transfer, there are two branches in Colleges and Universities concerned with industrial training: the ITB and the Applied Arts and Technology Branch (AATB). The latter is concerned (among other things,) with post-secondary programs, including federal purchases from CAATs under the Adult Occupational Training (AOT) Act, Training in Business and Industry (TIBI) Programs, and other related functions.

\* This point is discussed in detail in Chapter 12, pp. 181-187.



A high degree of integration in the implementation of all Ontario government programs must be achieved, whether the programs are intended to supply services or financial support to employer-centred training programs, or whether they involve employers' training their own employees or other members of the labour force to meet public objectives. This latter area is highly related to federal financing and federal manpower training programs so that adequate co-ordination, uniformity of policy and the allocation of funds, in terms of program efficiency, cannot be assured in any other way. It is important that apprenticeship programs be the responsibility of a single organizational entity concerned with employer-centred training as a whole. However, because of their specialized needs and the long tradition behind them, they require an identifiable organization to develop, promote and control them in a co-ordinated way. In our view, this requirement can best be met through an Apprenticeship Division which will be an integral part of a branch responsible for all employer-centred training programs in the province.

The distinguishing feature of an "employer-centred training program" as compared to "an institution-centred program" is that the employer assumes the primary responsibility for its quality, efficiency and 'outputs'. In other words, he plays a leading role in selecting candidates for the program, developing the curriculum and managing the major elements of the training process. He will, of course, do these things within a set of guidelines laid down to ensure efficiency in the use of public funds and to ensure that public objectives are being met. The program may be co-operative, in the sense that it incorporates elements of classroom and institutional training conducted away from the employer's premises. The central point is the degree of employer control and responsibility. Technical services of curriculum development, testing for trainee selection and the setting of standards can and should be provided by governmental support services with which the employer can consult. Similarly, institution-centred training is primarily the responsibility of a school, college or other institution primarily devoted to training.

The Task Force therefore recommends:

#### RECOMMENDATION 1

***That a single branch to be known as the Employer-centred Training Branch in the Ministry of Colleges and Universities be constituted, to be responsible for the development and co-ordination of all employer-centred training programs, including apprenticeship, in the province. That the branch incorporate all of the present headquarters and field staff of the Industrial Training Branch and those elements of the Applied Arts and Technology Branch related to the development and monitoring of in-industry training programs which are primarily serviced from the Colleges of Applied Arts and Technology.***

#### b. Local Implementation of Training Services

The promotion, development and servicing of employer-centred training programs must occur at local levels if they are to be sensitive to community needs. The present STIT, modular training and apprenticeship programs of the ITB are currently serviced by a regional field staff. The staff from the CAATs provides service to employers that relates to the TIBI Program. The Task Force has considered two alternatives in connection with the local servicing and promotion of employer-centred training. The first is to create local field units directly responsible to the Employer-centred Training Branch within the Ministry. The other is to create an Employer-centred Training Division in each CAAT. While the latter approach has inherent dangers, the Task Force, on the whole, favours it for several reasons. The Task Force therefore recommends:

#### RECOMMENDATION 2

***That an Employer-centred Training Division be established in each College of Applied Arts and Technology, and that it be responsible to the Employer-centred Training Branch with respect to financial regulations, administrative procedures and apprenticeship standards and regulations, and to the President and Board of Governors of the Colleges of Applied Arts and Technology for training methods, curriculum development and the promotion and general supervision of employer training projects.***

Staff responsible for the promotion, development and supervision of employer-centred training programs would be members of the Employer-centred

Training Division of each CAAT. The major reason for this recommendation is that the Task Force is impressed by the need to ensure, at the local level, the effective utilization in employer-centred training programs of the teaching, curriculum development and other technical resources of the CAATs. Equally important is the reinforcing of communication channels, which would bring the experience of employers to bear on the institutional training programs of the CAATs and would ensure a greater responsiveness of their institutional programs to labour market needs. This organizational structure could therefore serve to strengthen both institutional and employer-centred training by bringing the advantages of each method to bear on the other. It would facilitate the movement toward co-operative training programs, a vital ingredient in the success of an effective industrial training system. We use the term "co-operative" to describe programs in which part of the training is undertaken in an institutional (classroom) setting and part on the job, or through using the facilities, equipment and expertise of employers. The capacity to engage in co-operative training means that decisions can be made on the most effective way to organize a particular occupational training program so as to ensure a sound balance between classroom and job-oriented training.

The Task Force is conscious of the unique and special traditions of apprenticeship, and therefore recommends:

#### RECOMMENDATION 3

***That the staffs of the Employer-centred Training Divisions of CAATs, who are responsible for the development and supervision of apprenticeship, consist of persons fully responsible for apprenticeship programs and their regulation and that they also work in close consultation and communication with the Apprenticeship Division of the Employer-centred Training Branch of the Ministry and with the Local Apprenticeship Committees of each area.***

The question of Apprenticeship Committees will be the subject of further recommendations in Chapter 9 of the Report.\*

\* See Recommendations 16, 17 and 18.

What should be the respective roles of those in the CAATs and in the central branch of the Ministry of Colleges and Universities who are responsible for policies on employer-centred training? The Task Force feels that the distinction lies primarily between training or educational policy on the one hand and administrative and financial policy on the other. This distinction is familiar to the members of most educational and training institutions, for different officials are normally responsible for each of these policy categories. The central branch would be concerned with the administrative procedures to be used in the implementation of programs, and the regulations and guidelines under which they would operate, particularly on the financial side. Its primary role would be to ensure, in a broad way, that these regulations and procedures were adhered to, and that they were administered consistently throughout the province. CAATs and their policy-making officers would ultimately be responsible, through their Employer-centred Training Divisions, for advising employers on curriculum content, training objectives, selection standards, and the other purely training components of employer-centred training programs. Employers would assume the major responsibility for most of these elements of employer-centred training. It is, after all, this responsibility on the part of employers which distinguishes these programs from the CAATs' institution-centred programs.

We recommend, therefore:

#### RECOMMENDATION 4

***That the employer assume primary responsibility for the final selection of trainees, training methods and curriculum, project level administration of budgets, and adherence to regulations in government financed training projects.***

The organizational proposals for employer-centred training programs would essentially be along lines illustrated in Figure 12.

#### c. The Efficient Allocation of Industrial and Manpower Training Resources

Our analysis of the numbers and financial resources involved in each of the major labour force training channels in Ontario\* presents a pattern of largely haphazard growth in recent years. There has apparently been little conscious governmental decision-making directed toward determining the most

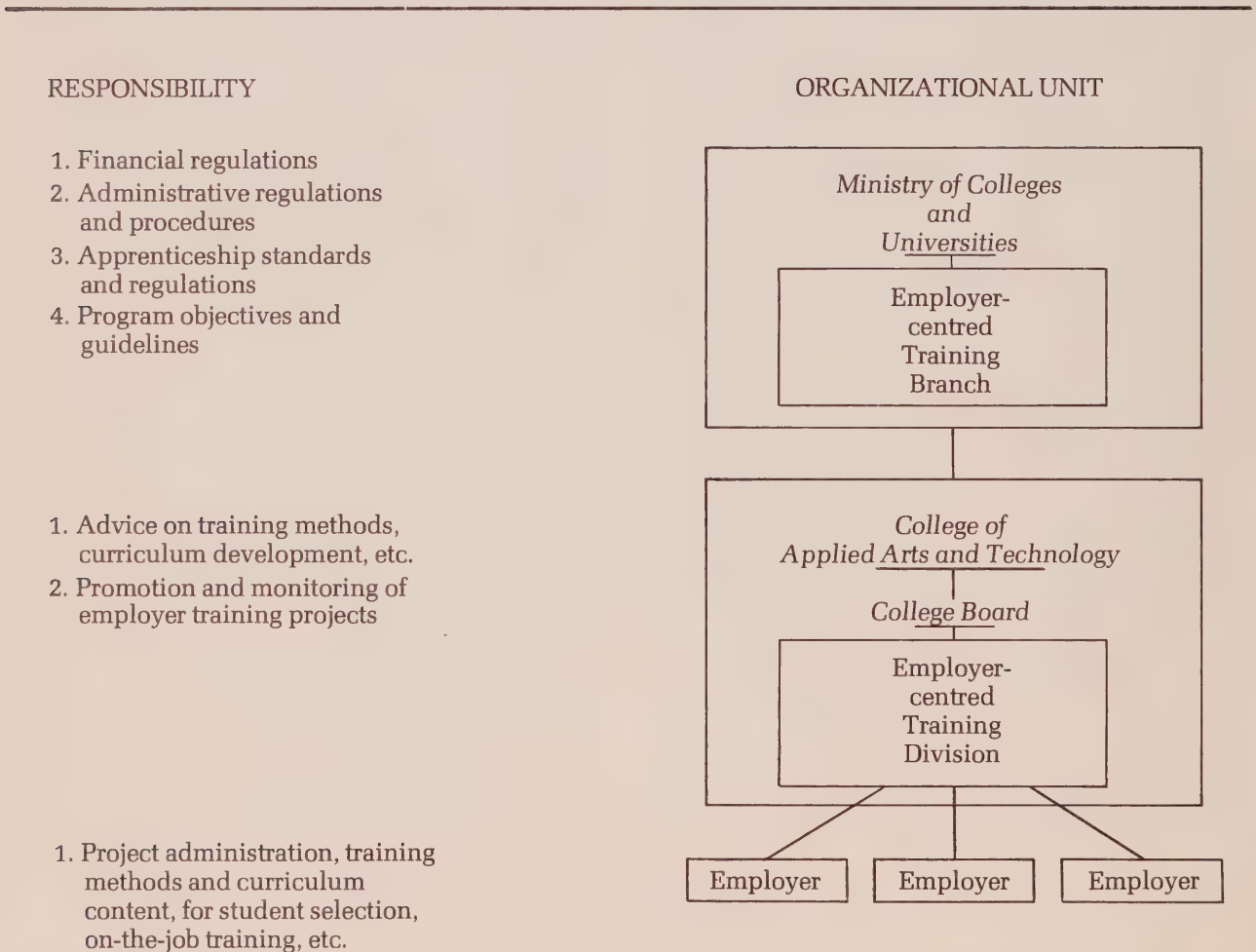
\* See Chapter 5, pp. 90-98.



efficient allocation of resources among the major training channels or programs. What kind of decisions concerning the allocation of resources should be made, and who should make them? In principle, the programs which are most efficient and sensitive to labour market needs and relevant to the career requirements of individuals should grow and develop, and those that fail to meet these criteria should be phased out, or at least allowed to decline in importance. Ultimately, these decisions are made at those levels of government at which budgets are allocated among programs. Such decisions must be well informed if they are to lead to a sensible allocation of resources and to the development of sound training policies and programs which meet public objectives.

Without a detailed evaluation of the results of training programs, the Task Force hesitates to give a definitive opinion on the total volume of resources that should be devoted to manpower and industrial training, and would certainly not be prepared to suggest that the volume in *real* terms of such resources should be increased. We feel that the resources available in the industrial training area should be distributed to the most efficient training programs, that an effective integration of the various programs should be ensured, and that a greater capacity to develop more effective programs, particularly in the area of employer-centred training, should be provided. In general, too much of the existing resources has been devoted to institution-centred training and too little to employer-centred

**Figure 12**  
*Organizational structure for employer-centred training*



training.\* However, we do not consider that a radical shift of present resources between the two sectors is advisable.

We recommend:

#### RECOMMENDATION 5

***That CAATs, supported by the Ministry of Colleges and Universities, give serious consideration to allocating incremental money resources for manpower and industrial training to employer-centred training programs.***

Our reason for recommending that the CAATs assume responsibility for the development and administration of employer-centred training is that a single training organization in each region would be in a position to reorder its priorities and the distribution of its resources between the institutional sector and the employer-centred sector. The CAATs could do so without the need to engage in competitive empire building in order to maintain their position in the face of competing training organizations and programs operating as independent regional training units. It has been forcefully expressed to the Task Force that this would be a mistake because it would lead to the neglect of employer-centred training by those responsible for the promotion and the development of institutional training. On the other hand, the Task Force has concluded that, while the CAATs have provided the base of institution-centred training and may be dominated by what many regard as the "educational establishment," giving them a vested interest in the promotion of employer-centred training would have more effective results than allowing employer-centred training to remain a separate organizational entity in competition for funds and resources. One specific fear is that apprenticeship training, in particular, would suffer, for the CAATs are regarded by some as unsympathetic to apprenticeship as a system of training. The Task Force believes that, while this fear is legitimate, apprenticeship has sufficient strength to commend it to many employers, unions, and journeymen who strongly support its role as a vital part of the training system of the province. Its future is not in question. It is partly for this reason that the Task Force is recommending that a visible and well-supported unit of the Employer-centred Training Branch in the Ministry, with Divisions in the CAATs, be exclusively devoted to the development, promotion and monitoring of apprenticeship programs.

One solution to the possibility that employer-centred training might be submerged by the vested interests in institutional training in the CAATs is to give the responsibility for the partitioning of CAATs' budgets between institution- and employer-centred training to the Ministry of Colleges and Universities. The assumption is that decisions at this level would be made on the bases of province-wide evaluations of the efficiency and relevance of these two approaches to training, and on evaluations of the CAATs' requirements as they respond to the needs of their communities and the logic of their internal development. Again, it is feared that decisions, or at least advice, on the distribution of resources will be made by officials of the Ministry whose main concern is with the promotion of institution-based training at the post-secondary level.

The Task Force has considered the objectives and development of industrial training programs in terms of several complementary but distinct criteria. These are the needs of the economy for skilled manpower, the needs of the individual for career development and the requirement for flexibility and the efficient choice of training methods in reaching public objectives. Consideration of these criteria leads us to the conclusion that they can best be met by assigning to the regional level responsibility for decisions on resource allocation among program areas. These decisions could best be made by the Boards of Governors of the CAATs. It is at the local level that responsiveness to labour market needs and to the requirement for relevance of training methods to occupational and industrial needs is most often evident. If the Board of Governors of a CAAT is allotted a total budget with which to implement both institution- and employer-centred training, it should have an incentive to allocate its resources in the most efficient manner and in a way which is particularly sensitive to labour market needs and other local requirements.

This proposal constitutes a marked departure from present procedures by which the Ministry allocates budgets to CAATs, in which funds are earmarked for training categories. To ensure an effective initial thrust in the direction of employer-centred training, the Task Force suggests that in the initial years of

\* We agree with the view expressed by the ECC in Design for Decision-making, pp. 104-09.



the implementation of this recommendation the Ministry retain budget-allocating authority over program categories, and subsequently shift the responsibility to CAATs as they gain experience under the new organizational structure.

To ensure that decisions on the allocation of resources between employer- and institution-centred training are made as objectively as possible and are responsive to local needs, the Task Force feels that the Boards of Governors of the CAATs should be partially reconstituted to ensure that the diversity of economic and social interests in each region are adequately represented. The boards would have an explicit responsibility for determining the directions of programs, and for the distribution of resources within the framework of responsibilities which we have recommended be allocated to the Employer-centred Training Branch of the Ministry and the Employer-centred Training Divisions of the CAATs.

The Task Force recommends:

#### **RECOMMENDATION 6**

***That the Boards of Governors of the Colleges of Applied Arts and Technology be reconstituted to represent the following categories of members:***

- (i) employer representatives of the principal sectors of employment;***
- (ii) representatives of the principal unions operating in the area, including at least one from the apprenticeship trades;***
- (iii) members who represent the municipalities in which the CAAT operates.***

***That boards have explicit responsibility to determine the distribution of resources between the major training programs and to provide general directions on program emphasis. That boards be appointed after advice from the principal economic and public organizations in the region, such as Chambers of Commerce, other employer organizations, local labour councils, municipal councils, and other organizations representative of various sectors of the public.***

The Task Force has considered the question of the responsibilities of the Council of Regents requiring amendment in light of its recommendation for providing divisions within the CAATs responsible for the promotion and implementation of employer-centred training programs under the general direction and guidelines of a Branch of the Ministry of Colleges and Universities.

The regulations of the legislation establishing the CAATs defines the function of the Council of Regents as follows: "The Minister shall be assisted in the planning, establishment and co-ordination of program instruction and services for such colleges by a council to be known as the Ontario Council of Regents for colleges of Applied Arts and Technology composed of such members as may be appointed by the Minister." The council is empowered to review specific recommendations for proposed educational programs and may modify or alter them prior to submitting them to the Minister. The Board of Governors may submit recommendations to the council. They may be modified, and on the approval of the Minister they are introduced as part of the program of the college.

The Task Force recommends:

#### **RECOMMENDATION 7**

***That the responsibilities of the Ontario Council of Regents for Colleges of Applied Arts and Technology, as they apply to the institution-centred programs of the CAATs, be left undisturbed, but that the implementation of these responsibilities be not applicable to employer-centred training programs.***

The initiative for new programs of employer-centred training, insofar as they involve government financial support, would come from the Ministry of Colleges and Universities, or from the federal government in agreement with the Ministry, so that the principal function of the Council of Regents, in relation to the institutional programs of the CAATs, would not be particularly relevant in the area of employer-centred training programs. The kind of general direction and co-ordination provided on the institutional side of the CAATs programs by the Board of Regents would be provided for the employer-centred programs by the Employer-centred Training Branch of the Ministry.

The appointment of CAATs' Boards of Governors by the Council of Regents represents an anomaly in terms of the Task Force's recommendations, as the boards would be responsible, within guidelines, for both the old institutional and the new employer-centred training programs, whereas the Council of Regents would be responsible only for the institutional programs.

The Task Force therefore recommends:

#### RECOMMENDATION 8

***That the Minister of Colleges and Universities, because of his responsibility for both employer-centred and institutional training, directly appoint the Boards of Governors of the Colleges of Applied Arts and Technology within the framework outlined for the reconstitution of the Boards of Governors.***

### 3. Organization and co-ordination of federal-provincial relationships

#### a. A Constitutional Basis for the Determination of Responsibilities for Industrial Training

Chapter 6 reviewed a number of problems associated with the relationships between the Department of Manpower and Immigration and provincial training agencies, particularly with respect to employer-centred training. It was pointed out that the recent amendments to the AOT Act empower the federal government to deal directly with employers and sign training program contracts with them, with no limitations on the extent and character of the financial support provided. This capacity to initiate programs, without any mandatory consultation or agreement with the provinces, can swamp provincial programs and priorities in employer-centred training. The sole restriction is the requirement that the employer (not the federal government) consult on the training curriculum with the appropriate provincial government agency.

In Ontario, the question of federal-provincial relationships in industrial training can be resolved only through an unambiguous and acceptable (to both governments) definition of federal and provincial roles in manpower training. Fundamentally, these roles must be based on the constitutional responsibility of the province for education on the one hand, and of the federal government for economic growth and stability on the other. In terms of *objectives*, and as we have indicated at the beginning of this chapter, manpower training can contribute to economic growth and stability. Therefore, its objectives constitute a significant aspect of federal government responsibility. The means for manpower training, educational and training processes, are well within the bounds of provincial responsibility under the British North America Act. Education is normally defined in a broad way to include training,

and therefore it is a generic term which does not exclude industrial training whether it be conducted within a school, an industrial plant, or elsewhere.\*

Section 93 of the British North America Act is categorical in granting exclusive jurisdiction over education to the provinces: "In and for each province the Legislature may exclusively make laws in relation to education, subject and according to the following provisions." The provisions have to do with religious education only and reserve a right to the Parliament of Canada to pass remedial legislation in that area.

Under the AOT Act which applies to members of the labour force, the constitutional basis of the legislation is that the purchase of training services from publicly-financed (or private) schools is necessary to facilitate the better working of the economy, because it affects the mix and stock of skills available on the labour market. The province can still keep control, for it can determine the nature of the training it will sell. Agreement is therefore required on the way in which, and the extent to which provincial *institutional* training facilities will be utilized. The federal government does not influence the means for training, i.e. the provision of courses and programs in the CAATs. On the industry-centred training program side, however, the AOT Act, as amended in May, 1972, adopts a quite different stand and permits the Minister of Manpower and Immigration to purchase training services *directly* from employers by contract. It does not recognize provincial jurisdiction in the field of training and education except for the single restriction of employer *consultation* on the question of curriculum content.† Through this amendment, the federal government has acquired the power to utilize processes of education and training in the province without even consultation or agreement being required by its legislation, except for the restriction mentioned above. One cannot equate education with schools or publicly-financed institutions. The BNA Act did not restrict exclusive provincial jurisdiction over education, which is a

\* The shorter Oxford Dictionary defines education: "Bringing up (of the young); systematic instruction; course of this, as classical, commercial, art, e.; development of character or mental powers; training (of animals)."

† This is presumably a bow in the direction of provincial jurisdiction in the field of training, but it restricts the jurisdiction to curriculum content only. There are many other matters that affect education and training as a process and as an activity.



broadly-defined activity and process, to something called schools or educational institutions. The province has an exclusive jurisdiction over training in a private enterprise just as it has in a CAAT or a secondary school, particularly if public financing is involved.

Distinct from the issue of invasion of jurisdiction, federal-provincial relationships are important to ensure control by the Ontario government over the efficient allocation of the resources used in industrial training to achieve its public policy objectives. The province cannot assume responsibility for the effective meeting of objectives if the federal government can submerge the impact of Ontario's policies because it has an unlimited capacity to subsidize/or purchase training services from private employers. An effective co-ordination of the respective roles of each government in manpower training cannot be achieved, except on a sound and acceptable constitutional basis in which each respects the rights and the public responsibilities of the other. Otherwise, one part of the training system can undermine the effectiveness of other parts, depending on the allocation of financial resources and the ways in which employers react. In the view of the Task Force, the claiming of jurisdiction is largely a matter of asserting it through legislation as the federal government has done. It is partly for this reason, but primarily to provide a sound basis for the effective co-ordination and agreement of the federal and provincial governments in the area of training-in-industry, that the Task Force makes the following recommendation:

#### RECOMMENDATION 9

***That legislation be enacted which, among other things, would deal explicitly with training-in-industry (employer-centred training) and related matters in terms of objectives, standards, and financial support. Such legislation would require the approval of the Minister of Colleges and Universities before employers could accept financial support for the training of employees or other persons from an agency or department of government other than an agency or department responsible to the Government of Ontario.***

#### b. Policy and Administrative Co-ordination of Industrial Training

Policy co-ordination is the remaining and most difficult area of co-ordination in the field of manpower training. There are many reasons why

sovereign governments, responsive to their own parliaments, legislatures and electorates, do not choose to co-ordinate their initiatives adequately. As we have seen, particularly since 1967, steps have been taken in manpower training, particularly in the field of employer-centred training, without adequate consultation. The results have been confusion, inadequate administrative integration and program definition, and doubtful consequences for individuals and the economy.

The Task Force has come to the conclusion that there is no way in which adequate co-ordination at the policy level can be assured by simply recommending the improvement of organizational structures in the Canadian federal system. Machinery for policy co-ordination now exists in the form of meetings of the federal and provincial Deputy Ministers concerned; and a Review and Assessment Committee which jointly undertakes research in manpower training, and through Section 13 of AOT Act which provides for committees set up for consultation on the directions of the training programs at the provincial level. These committees have met irregularly and major policy initiatives have been taken with little, or only nominal, consultation through them. Recent efforts have been taken by the Department of Manpower and Immigration to strengthen the extent and character of consultation through the Section 13 committees.

Real consultation and co-ordination, however, will only take place if each level of government is dependent on the other for program implementation. This is so with institutional training, but not with employer-centred training. The Task Force has therefore recommended that provincial legislation establishing jurisdiction be used to require the federal government to be dependent on the agreement of the provincial government for the implementation of in-industry training programs. It is only in this way that roles will be defined and adequate administrative integration achieved.

In Chapter 6, the Task Force reviewed the history of inadequate consultation between federal and provincial government departments and discussed administrative confusion in the area of employer-centred training. We indicated that the efficient delivery of training services to employers and workers in industry must meet several requirements that are largely absent. These are: first, policy co-ordination to arrive at agreed, common and specific objectives; second, the clear definition of the administrative (program implementation) respon-

sibilities of each government agency concerned; third, a continuous integration of the administrative processes for the delivery of the services that relates to the responsibilities of each agency; and fourth, a clear and orderly communication between agencies of changes in policies and administrative procedures.

In order to meet these requirements for policy co-ordination, definition of administrative roles, and integration of administrative procedures in program implementation, the Task Force makes the following recommendation:

#### RECOMMENDATION 10

- a. That each year a comprehensive agreement be signed by the Minister of Colleges and Universities and the Minister of Manpower and Immigration to cover the financial resources, the training places or man-years of training, and the matters covered under (b) and (c) below for each program area under the AOT Act or other manpower training programs established by the federal government.**
- b. That there be agreement between the relevant Departments of each government on program(s) objectives in specific terms, on financing of employer-centred programs, and on the technical support services to be provided to employers within the legislative frameworks established by each government.**
- c. That the administrative and implementation roles of each government's designated agencies be defined and agreed upon, particularly in the area of employer-centred training.**
- d. That provision be made for changing these agreements, on an adequate notice basis, by either party if such is required in light of changing needs and conditions.**

The views of the Task Force on the substance of the federal-provincial agreements in most of these areas are covered in various sections of the Report. Determination of the volume and pattern of training under the AOT Program is dealt with on the technical side in Chapter 12 and on the organizational side later in this chapter. Objectives were covered earlier in this chapter and the appraisal of existing programs in Chapter 6. Financing of employer training is discussed in Chapter 8 and technical support in Chapter 12.

Some clarification of our views on administering employer-centred training programs by each level of government may be desirable at this point, although the detailed structure should be worked out by the agencies directly concerned. As we indicated earlier, in principle, administrative roles should flow from the constitutional responsibilities of each level of government. This means that Manpower and Immigration should take the initiative on the primary responsibility for program objectives and for the scale of financial resources that it wishes to commit to programs. It also implies a primary role for this Ministry in selecting those eligible for training through substantially federally financed programs, particularly where employers are used to train members of the labour force other than their own employees. In addition, Canada Manpower Centres are in a position to counsel and determine which members of the labour force are in need of training. It is to be hoped that the substance of policies on these issues would be ultimately determined in agreement with the provincial authorities.

Responsibility for training as an activity or process, whether it takes place in a school or on an employer's premises is clearly the primary provincial role in the administrative implementation of the program. The province should aim to assist employers in the development of training curricula, promote the programs among employers, administer financial support to employers, and monitor the programs from the point of view of administrative efficiency (the selection of trainees and the provision of financial support to them being a federal responsibility). The federal agency cannot, of course, be completely absent from the evaluation process. Federal funds are being spent and it must therefore assume some responsibilities for financial auditing of the program, and for determining its effectiveness in meeting federal government objectives.

Institutional training courses in CAATs are purchased by Manpower and Immigration under the AOT Act. Similarly, the federal government could purchase employer-centred training from the provincial government and would therefore have the ultimate say in what programs were purchased. If these principles were adhered to, it should be possible to delineate the administrative responsibilities of each party in a clear-cut manner.



*c. Organization for Co-ordination of federal-provincial Relationships on Manpower Training within the Government of Ontario*

The purchasing by the Department of Manpower and Immigration of both institutional and employer-centred training requires planned co-ordination by a single provincial authority. This is primarily the responsibility of the Ministry of Colleges and Universities, which embraces both post-secondary institutional training and employer-centred training. As we have indicated earlier, it is essentially a process of negotiation at the provincial level to reach agreement with the Department of Manpower and Immigration on the allocation of financial resources and student places, or man-days of training, on a program-by-program basis. This is the only way in which the Ontario government can formulate its policies on the appropriate distribution of federal training resources between institution- and employer-centred training. The CAATs, in consultation with their Employer-centred Training Divisions, and on the basis of surveys and labour market requirement analyses, would make submissions to the Ministry of Colleges and Universities on the appropriate distribution of federal manpower training resources in their areas. The Ministry could then formulate an overall policy based on the micro view from each region combined with a macro view of needs at the provincial level.

When the major types of program expenditures have been determined on both province-wide and regional bases, the distribution at the regional level of Manpower and Immigration's training resources between differing programs of institution- or employer-centred training should be determined by the CAATs, in consultation and agreement with CMCs or other organizational entities that the Department of Manpower and Immigration wishes to designate for this purpose. It is at the regional/ community level that flexibility and sensitivity to the needs of individuals and employers, on the basis of adequate labour market analyses and forecasts, can best be achieved. At this level, also, decisions on the choice of institutional training, employer-training or a combination of the two to meet a particular objective, can be made most effectively. Such decisions made in Toronto or Ottawa

are far too remote from the source of needs and training capacities to be sound.

On the basis of these considerations, the Task Force makes the following recommendations:

**RECOMMENDATION 11**

***a. That a Senior Committee be established by the Ministry of Colleges and Universities to co-ordinate and develop a provincial policy each year on the purchase by the federal government of manpower training from institutions (public or private) and from employers in the province. That this authority (or committee) be responsible for the development of the agreement(s) mentioned in Recommendation 10.***

***b. That the Ministry determine an appropriate allocation of resources for each main program area to CAATs as a group (including the Employer-centred Training Divisions), on the basis of an appraisal of needs submitted by them in advance of the negotiations with the Department of Manpower and Immigration.***

***c. That the CAATs be responsible for determining in detail the allocation of resources, allocated to them by the Ministry, within the major program areas and among occupational course groupings, in sub-programs in the employer-centred training and institutional training areas. That this be done in consultation and agreement with Canada Manpower Centres or other organizational units designated by the Department of Manpower and Immigration at the regional level.***

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## CHAPTER 8

### *The financing of Training-in-industry*

Chapter 5 has described the present financing of training-in-industry programs. The Short-term In-industry Training Program (STIT) is financed both federally and provincially; the Training in Business and Industry Program (TIBI) is provincially financed; and financing of the new Training-on-the-job Program (CMTJP), introduced in the winter of 1971-72, is a federal responsibility.

As a result of May, 1972 amendments to the Adult Occupational Training (AOT) Act, legislation now does not provide any constraints on the means or the extent to which the federal government may finance training-in-industry. Wages and other costs can be subsidized to any extent, while, as we have seen, the Minister of Manpower and Immigration can sign contracts unilaterally with employers, subject only to consultation on curriculum by the employer with provincial authorities.\*

The financing of apprenticeship will not be discussed here, as it is dealt with in Chapter 9. However, the principles discussed in this chapter are applicable to apprenticeship in a broad way, with some variation due to the character of apprenticeship training.

Because the financing of most in-industry training programs is from federal sources, combined with a large measure of federal control, an air of unreality can surround the discussion, in a provincial Task Force Report, of a sound set of principles for the financing of in-industry programs. Unless the province and the federal government can agree on an appropriate basis for financing of the kind suggested in this chapter, most of what is said here will be academic. The Task Force does suggest, however, that the principles of financing outlined here be used by the Government of Ontario as a basis for seeking agreement with the federal government and, unless special circumstances warrant a differentiation in approach from province to province, that these principles be considered by the federal government as a basis for the financing of training-in-industry across Canada.

Our views on financing do not spring from a provincial or federal position; rather, we believe them to be sound public policy on the extent to which public financing is desirable to meet effectively public objectives through training-in-industry programs.

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\* A fuller discussion of the federal Training-on-the-job Program will be found on pp. 80-81.



It is necessary to make several distinctions in an analysis of the criteria for financing training-in-industry. One such distinction is whether it is an employer's training costs for his own employees that are being financed, or whether he is being used to train other members of the labour force as an alternative to public institutional training. Another distinction is between the actual training costs and the costs of income support for trainees during their training period.

Our analysis will be cast in terms of these distinctions; it is important to maintain them if the integrity of training *per se* is to be secured, and if the development of training activities is not to be confused by the use of financing for training to meet other objectives, such as employment creation or industrial development.

### 1. The training of employees by their employers

The circumstances under which employers will undertake training for employees independently has been discussed in Chapter 4. From the employer's point of view, the function of training is to enable his employees to acquire the skills and knowledge necessary to be efficient in their work. Within industry, many levels of training, from formal to informal on-the-job, are used to provide job skills and knowledge. Our analysis will concern itself with the financing of formal training. In general, employers will supply formal training, on their own initiative, only in circumstances where there is a shortage of manpower, and where they do not have the other options of external recruitment or employee skill acquisition through informal on-the-job experience.\*

It can be argued that it is beneficial to finance training by employers under any circumstances in which they would not undertake it independently, and from which general social benefits flow. By social benefits we mean secondary or "spill-over" benefits accruing to society in the form of productivity improvements, or increased employment opportunities resulting from training. But employers undertake training to meet production requirements, and thus it is they who capture most of the benefits in terms of increased productivity and output. They can cut their losses on the training investment by

restricting training programs to stable employees and retaining them through increased seniority and wage benefits, thus reducing their staff turnover. Employees can reap the benefits through increased personal productivity leading to higher earnings with the employer-trainer, or with another employer paying higher wages.

Thus, as a generalization, it can be said that under most circumstances employers who train their own employees do succeed in capturing most of the benefits.\* The distribution of the benefits between employers and employees depends on the structure of the wage system and on the portability of the skills acquired through training. Mobility of labour tends to inhibit employers from investing too heavily in training for highly portable skills because they fear they will lose the expected benefits resulting from training expenditures. At the same time, of course, general skills are those that tend to be most available on the labour market and so employers often do not need to invest too heavily in this kind of training.

To determine the conditions under which it is appropriate for governments to subsidize employer training, it is necessary to examine the circumstances under which social benefits flow from private expenditures undertaken by employers. In principle, these will all be cases in which employers would not undertake training expenditures on their own, for there is no point in government supporting private training expenditures if they would be undertaken in any event.

#### a. Bottleneck Training

"Bottleneck" skills which produce "vacuum" effects are frequently mentioned as a justification for government financing of private employer training. It is argued that if employers can be given an incentive to train to meet an occupational shortage creating a bottleneck in the expansion of production and employment, a vacuum will be filled and workers will be hired for less skilled jobs which could not be filled unless the bottleneck was broken. In this case, it is the employer's training activity which creates employment that would not otherwise occur. In this context it is appropriate for government to finance training in the interest of creating employment for the unemployed. If a genuine bottleneck training situation can be identified, we believe that it consti-

\* The extent of in-industry training in Ontario and the motivations of employers engaging in it is reported in Chapter 4.

\* A survey of a sample of employers undertaken for the Task Force revealed that few employers indicated they would not undertake training because of problems of employee turnover.

tutes a legitimate reason for public support of private training expenditures. However, there is a problem concerning the extent to which bottleneck training does in fact occur in the way described. To justify public expenditure, it is necessary to be sure that the employer does in fact have an option not to train his own staff – that is, that he can not recruit from elsewhere or find other ways of increasing production or employment without resort to formal training. If in fact there is a bottleneck, then almost by definition the labour market situation is such that the employer cannot recruit to fill it, and so he must train one of his own employees if production is to be expanded for greater profit. Thus, while public benefits do indeed flow from bottleneck training, in most cases public subsidy is not required to stimulate the employer to train. In addition, many bottleneck vacancies tend to be filled through informal job experience and upgrading methods rather than by formal training programs. In this case, the investment framework for analysing the consequences of the benefits that flow from training is not appropriate, for the costs of skill acquisition cannot be identified in informal or on-the-job training because they are part of general production costs. In essence, it is impossible to identify the costs of informally acquired on-the-job experience because machinery and equipment are being used for both training and production purposes, and production is a function of the acquisition of skill and experience.

It is thus the view of the Task Force that those instances in which training expenditures by public authorities are justified to eliminate bottlenecks and create employment expansion are rare. The administrative difficulties of identifying genuine cases are extreme, and in any event, the need for such public subsidy is relatively rare and is, therefore, not worth being concerned about as a practical matter. "Shortage occupation" is a criterion which the Department of Manpower and Immigration now uses to approve public expenditures for the STIT Program. As a result, it is probable that substantial, unnecessary expenditures are being made to induce formal training in those few cases where it would not take place in any event.\*

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\* Correspondence between the Department of Manpower and Immigration and the Industrial Training Branch, Ontario Department of Labour, dated March 1, 1972, states that one of the objectives of the STIT Program is "to train workers in skilled occupations in short supply and for which there is a continuing demand."

#### *b. Retraining to Avoid Unemployment*

There are situations in which technological or other changes make some jobs redundant in particular firms. The employer then has the option of recruiting workers from the labour market to meet his changed job needs, rather than undertake the more expensive training of his redundant employees. In such cases, it would be better for government to support employer retraining, rather than bear the costs of retraining the redundant workers elsewhere. The human and economic difficulties of readjustment in the open labour market would also be avoided. Such cases can be identified administratively, and the Task Force feels that it is sound policy to subsidize the costs of retraining if it would not otherwise take place. This criterion is explicitly written into the Adult Occupational Training Act.

#### *c. "General" Training*

It is frequently argued that "general" training undertaken by employers should be publicly financed in order to increase labour force mobility and because, in any case, governments now have to support this kind of training in public training institutions, if it is not undertaken by employers. "General" training is explicitly recognized by the Department of Manpower and Immigration as being eligible for public subsidization, "to foster occupational mobility of the labour force by encouraging employers to provide broader, more transferable training; . . .".\* While in theory this approach might seem to constitute a valid basis for public subsidization of industry training, there are substantial problems of definition and administrative implementation if the wholesale subsidization of training, which would have been undertaken by the employer in any event, is to be avoided. A cursory review of the occupational structure suggests that there are relatively few occupations in industry that are not "general", in the sense that the skills and knowledge acquired through training by one employer cannot be transferred in whole or in part to another. Most of the clerical, service and maintenance occupations are transferable in this sense, as well as a considerable number of the machine and mechanical trades occupations, because industrial machinery is not specific to one firm but is characteristic of many undertakings the same general range of activities. There is probably a very restricted number of occu-

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\* Correspondence exchanged between the Department of Manpower and Immigration and the Industrial Training Branch, Ontario Department of Labour (March 1, 1972).



pations which are unique to particular employers; many of them, such as lighthouse keeper and postman, are found in government service. This indicates, then, that the opening of the "general" training door as a rationale for public subsidy of training cannot be selective in any meaningful sense and, therefore, could lead in time to a wholesale public financing of much employer training which would occur in any event.

Training can be viewed as "general" in a much narrower sense if it is applicable to a very large number of occupations, rather than designed to promote labour mobility. While "general" in this sense is most likely capable of more precise administrative definition, it involves training of a general educational character in such areas as communications skills, mathematics, applied engineering or sciences, or computer skills. These are, in any case, areas of training which are most effectively taught in institutions rather than in industry, or at best are candidates for co-operative training programs in which the more theoretical elements are taught in institutions and the applied elements are acquired in industry.

The Task Force therefore believes that "general" training, however defined, should not be a criterion for the public subsidization of employer training programs.

*d. Methods of Improving the Quality and Efficiency of In-industry Training*

The Task Force has identified an area which is of significant concern to many employers, not in terms of direct financing, but in terms of providing, through government, substantial technical support to in-industry training. In the interview survey of employers undertaken for the Task Force, many pointed to a technical assistance role most frequently when they were asked what the nature of government's involvement in in-industry training should be. Technical assistance can include the design of training curricula, the analysis of job content and skill requirements, and related help in the organization and implementation of training programs. This type of support was mentioned most frequently by employers who both did and did not have formal training programs. Only a few felt that the technical aspects of training program development should be the exclusive responsibility of industry. The majority response is understandable when it is realized that most employers are small

and do not have the resources necessary for acquiring sophisticated training personnel. Training and training program design are intermittent needs for small- and medium-sized employers. It is usually only the largest who can afford to develop their technical training capacities in a professional way, on a full-time basis.

The rationale behind public financing of technical services is that quality of training adds to the productivity of the economy. Thus it makes economic sense for government to share with industrial employers the substantial overhead costs of providing technical training services. In other words, the sharing of these overheads provides substantial benefits to the country's economy in terms of improved quality of training and consequently of productivity. It is for these reasons that the Task Force has recommended that the Employer-centred Training Branch provide a means to assist employers in improving the quality and efficiency of their training programs on a needs basis (see Recommendation no. 38)

**2. Meeting public training needs through employer training**

Government use of employers, instead of public training facilities, to meet public training objectives has a different financial basis from the subsidization of employers to train their own employees. In this case, government in effect buys the capacities of employers to undertake a training task which is its own responsibility. The training authorities consciously decide that employers can train members or potential members of the labour force better or more efficiently than other training channels. Employers are thus used to train the unemployed, the physically or psychologically handicapped, and untrained youth in those cases where they can do it more efficiently and less expensively than the public institutions.

Trainees are selected and referred to the employer by Canada Manpower Centres or other government agencies. A major example of this approach is the new Training-on-the-job Program launched in 1972 by the Department of Manpower and Immigration. It is also used in some STIT Programs to train unemployed or potentially unemployed workers.

### a. Training Costs

If training by employers is used to meet public objectives, it is appropriate and necessary for government financing to be extended to include, in addition to the marginal or net cost of training, a reasonable profit\* for the use of facilities and managerial skills. Preferably, financing should be arranged on a contractual basis. The details of the arrangement should be designed to facilitate the administration of the program, and to provide an effective incentive for employers to respond efficiently and in sufficient number to the need for public training of this nature.

In principle, the employer is paid for the training service he provides in terms of its net cost to him. If the training is predominantly on-the-job, the value of the goods or services produced by the trainee must be deducted from the gross cost of the training to arrive at an appropriate net figure. Payment can be calculated in several ways, such as on an estimated per-head trained basis with adjustments for excess profits or losses, a basis of reimbursement against actual expenditures plus profit, or an incentive basis geared to improving the quality and efficiency of the training process, with the employer undertaking the risks of profit and loss on a pre-determined, negotiated and fixed price. The Task Force has not undertaken a detailed examination of the most effective method of financing public training, but would suggest that assurance of an effective response from employers, a high quality of output, and administrative efficiency are the considerations which should in the main dictate the character of the particular payments systems used.

### b. The Support of Trainees

The Task Force believes that in-industry trainees should not enter into standard employment relationships with their employer-trainers. To a significant degree, trainees should have the same status relation to their employers as students to their school administration. The employer is responsible for their discipline and the quality of their training program. Trainees' income support should be paid in the form of allowances by the government agency which purchases training services for them. Maintenance of their income is this agency's

responsibility in the same way as is the payment of allowances to trainees in institutional programs.

Our survey of employers has revealed that many support the concept of training unemployed and other persons under government auspices. Many felt, however, that the training should meet industry's requirements, and that it should be provided only for skills that were transferable between employers rather than specific to the training firm. A majority appeared to favour training for transferable skills, and this was in keeping with their desire to retain freedom in the selection and dismissal of government-sponsored employee-trainees. They did not wish to commit themselves in advance to keeping trainees on the payroll after training. The maintenance of trainee rather than employee status serves to protect the employer from having to retain those who do not meet his standards during training.

On-the-job trainees will of course produce output which is of value to the employer and incidental to the primary objective of training. This is the property of the employer and should be deducted from the gross cost of training. In some on-the-job training programs trainees have been paid for this output. However, we argue that public institutional training involves as much "work" or energy on the part of unpaid trainees, yet the end product is the same – trained workers capable of contributing more to the economy than they could before training. When an on-the-job trainee reaches the average productivity level, the training process, subsidization of training costs, and payment of allowances, should cease. This principle is followed, but administrative arrangements are required to calculate duration of training programs, in terms of reasonable expectations of the time taken by trainees in differing work situations, to achieve average productivity. Following training, the trainees should be available for hiring by their trainer-employers or be able to enter the labour market for recruitment by others.

The CMTJ Program of the Department of Manpower and Immigration places the trainee in an employment relationship with the employer and therefore runs counter to the principles outlined above. To a significant degree, there is confusion as to whether

\* As in the case of other government contracts for services, profit is included because the employer is using his own capital and technical resources and should be paid a market rate of return for their use.



its objectives are employment creation or training. While the program undoubtedly does provide some "training" for less than competitive unemployed workers, it is principally an employment creation measure which, through wage subsidization, reduces the labour cost of participating employers. Large numbers of workers, newly employed under normal conditions, undergo "training" which merely consists of gaining sufficient experience to become averagely productive in their unfamiliar new jobs. CMTJP, which subsidizes labour costs, shifts the relative competitive positions of employers because some are helped at the expense of others. Wage subsidization also alters the regional and occupational distribution of employment and can produce additional unanticipated side effects. These disadvantages can reduce the credibility of many soundly organized high quality, employer-centred manpower training programs.

The Task Force is not opposed to government programs for employment creation to meet economic stabilization objectives and cyclical, seasonal and regional needs. However, if on-the-job training is a desirable component of employment creation programs, government financing of identifiable training and trainee support costs should be kept separate from those elements of subsidization designed to create employment. In addition, the side effects should be predicted and controlled as accurately as possible if they are not to undermine either of the public objectives of employment creation and training.

To avoid misunderstanding, it may be useful to comment on the training of workers in industrial development programs for depressed areas. It is often argued, and with validity, that it is necessary to train many of the newly recruited local workers, because otherwise the employer will exercise his option of hiring qualified workers from elsewhere in order to minimize his recruitment costs. It is then argued that it is necessary to subsidize the employer's training costs to counteract this tendency. Again, such an argument confuses the function of training with the objective of employment creation. Training can be undertaken on the basis of the financial principles outlined earlier and after training the graduates can be placed on the employer's payroll as fullfledged employees. Alternatively, the estimated cost of training can comprise

part of the grant or tax concession paid to the employer to induce him to expand or settle in the depressed area. The grant or incentive is presumably designed to overcome all of the locational disadvantages, such as distance from markets or raw materials and lack of access to adequate sources of skilled labour. Thus, while training plays a role in filling the skill shortage in depressed areas, its costs can be absorbed as an integral part of the subsidy designed to attract the employer, rather than as a separate wage and training cost subsidy item.

### *c. Implications*

This review suggests that most of the employer training programs operated federally, provincially, or jointly, violate some or all of the desirable financial criteria for government-sponsored, employer training programs, both to train employees and to meet public objectives.

In the case of employer training for existing employees, only government financing of those who would otherwise become unemployed as a result of technological and industrial change is acceptable. Both the TIBI and STIT programs subsidize all or part of employee training costs in schemes to train various types of workers for a number of reasons which are not acceptable as a basis for public financing. The STIT Program also subsidizes the wages of full-time employees in training. The federal TOJ Program subsidizes up to 75 per cent of trainee wage costs. This form of subsidization does not distinguish between training costs and trainee income support costs and so violates all our criteria.

What are the effects of the present methods of government financial support of in-industry training programs? First, in the case of programs like TIBI and STIT, which finance employers to train their own employees, it is very likely that both the federal and provincial governments are financing considerable employer training activity which would, in any case, have occurred. Thus the governments are in the position, not of encouraging a desirable socially beneficial activity, but of merely reducing employers' costs of necessary training activities associated with production. This finding is supported by the survey of employers carried out for the Task Force in which most stated that government financing would not cause them to undertake training which they would not otherwise have undertaken.

Our analysis of employer training strongly suggests that, rather than direct financial assistance, it is basically technical help in improving the quality of their programs that employers require from government training agencies. Thus, the resources now being used to finance employer training for existing employees could be more usefully devoted to the development of high quality and readily accessible technical support services.

The economic implications of federal government financing of TOJ Programs to meet public objectives through wage subsidization has been discussed earlier (pp. 105-107). It not only has undesirable economic side effects, but also causes the credibility of in-industry programs to be diminished. In addition, it does not conform to many employers' ideas on the manner in which they wish to participate in government training programs. This may account for the attraction of the 1971-72 winter TOJ Programs for small rather than large employers.

In light of this analysis of the appropriate criteria for financing employer-centred training, and in view of the undesirable effects of present financing methods, the Task Force makes the following recommendation:

#### RECOMMENDATION 12

***That the Government of Ontario seek to negotiate a revised basis for the financing of employer-centred training with the Government of Canada, using the criteria outlined herein; the Government of Ontario to consider whether it wishes to make its approval of employer-centred training programs (as proposed in Recommendation 9) contingent on the acceptance of these, or appropriately modified, criteria.***

It is possible that the federal government may adopt the extreme position that its own financial criteria are entirely appropriate for the development of employer-centred training across Canada, and that if Ontario does not wish to accept them, funds need not be made available for training-in-industry programs in the province. Ontario should be prepared to argue that the method of financing TOJ Programs enables them to be used in a discriminatory way and with undesirable side effects, and can hinder the development of sound, in-industry training programs. Most serious, however, is the fact that the Ontario government will not be in a position to allocate public resources, devoted to industrial and manpower training, between institution- and employer-centred training in the most efficient way.

While it would be desirable for the federal government to adopt sound criteria for the financing of employer-centred training across Canada, it should at least adapt its financing arrangements to meet the needs and desires of particular provinces, as long as this will not discriminate unfairly against other provinces. The Task Force's criteria for financing in-industry training are, in fact, less generous than those applied by the federal government, and so would not create inter-provincial discrimination were they adopted for Ontario alone.

If the federal government is not prepared to modify its financial criteria, perhaps the Government of Ontario's soundest position would be to request an amount of money equivalent to that provided to other provinces for in-industry training, to spend on manpower training in any way it sees fit. In this way, the province's responsibility for the rational allocation of manpower training resources between training institutions and employer-centred training would be maintained.



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*PART III – Improving the Quality of  
Ontario's Training System*

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## CHAPTER 9

### *Apprenticeship in Ontario*

In Chapter 2 it was noted that apprenticeship has been a publicly recognized system of occupational skill development in Ontario since 1921. Apprenticeship is singled out for review in this chapter because the Task Force's terms of reference specifically requested a detailed examination of this system of training. The organization and scope of apprenticeship is described, and an examination is undertaken of a number of factors that influence its effectiveness and efficiency. A number of recommendations are made with a view to improving existing apprenticeship schemes.

#### **1. Organization and scope of the program**

##### *a. Organization*

The Industrial Training Branch (ITB) of the Ministry of Colleges and Universities is responsible for administering Ontario's Apprenticeship Program. Because of the method of training involved, which is a combination of on-the-job and classroom instruction, the ITB relies very heavily on employers and trade unions to implement and operate the program.

The ITB promotes apprenticeship training among both potential apprentices and employers, interviews persons seeking entry into apprenticeship, and provides them with information on minimum entry requirements and the procedures followed. When a trainee finds an employer who is prepared to hire him as an apprentice, or the ITB is successful in placing an apprentice with an employer, the ITB registers the Contract of Apprenticeship. The ITB is also responsible for monitoring the progress of apprentices, arranging for in-school instruction, administering final examinations, issuing certificates, and enforcing official regulations. All of these activities necessitate thorough liaison and record-keeping by officers of the ITB.

The branch is also responsible for reviewing and developing curricula and training schedules for each apprenticeable trade. In addition, for trades where the Certificate of Qualification is compulsory the ITB is expected to protect minimum provincial trade standards. Job sites are policed to ensure that only registered apprentices or journeymen who hold the certificate are working at these trades.

In a great deal of its work the ITB is assisted by advisory committees at both the provincial and local community levels. Under the Apprenticeship and Tradesmen's Qualification Act, the Minister of Colleges and Universities may appoint for any trade, or



group of trades, a provincial Advisory Committee to advise him on matters relating to tradesmen's qualifications and the establishment and operation of apprentice training programs. Similarly under the Act, the Director of the ITB may appoint local apprenticeship committees to advise and assist him in matters relating to apprenticeship or tradesmen's qualifications in specific areas. While the number of committees varies from time to time, in September, 1972 there were 25 active provincial committees and 50 active local committees.

#### b. Scope of the Program

On March 31, 1972, there were 18,561 active apprentices registered with the ITB and these trainees were distributed among 156 different trades. These trades can be differentiated according to whether they are "regulated" or "non-regulated" under the Apprenticeship and Tradesmen's Qualification Act. A regulated trade is one that has been specifically identified under the Act by an Order-in-Council as an apprenticeable trade, and for which specific trade regulations are set down.

For regulated trades, which are listed in Table 14, there are standard training schedules and examinations. Minimum wage rates for apprentices and the maximum number of apprentices an employer may hire are stipulated. This maximum number is regulated by setting a ratio of apprentices to journeyman which an employer may not exceed.

There are also training curricula and examinations for each of the non-regulated trades, but no standards are specified. These trades, which are listed in Table 15, are administered under the general regulations of the Act. There are neither standard trade definitions nor interim examinations; and no fixed requirements for final examinations. For most there is no provision for in-school instruction. Non-regulated trades are concentrated in the manufacturing sector, where it is difficult to specify common training requirements within a trade because of variation between industries, and even between plants within an industry, in their construction, maintenance and repair requirements.

The nature of the certification of accreditation process is different in regulated and non-regulated trades. The successful candidate in a non-regulated trade apprenticeship program receives a Certificate

of Apprenticeship, but the certification is voluntary because it is not legally required before beginning work as a journeyman in the trade. In contrast, for many of the regulated trades the successful candidate receives both a Certificate of Apprenticeship and a Certificate of Qualification, and for several the latter is mandatory.

When apprentices are distributed by type of trade, it becomes evident that the regulated trades, especially those with compulsory certification, are most important. There are 16 such trades and they accounted for 13,985 of the 18,561 active apprentices on March 31, 1972 (see Table 13). The 15 regulated trades that have voluntary certification and the two that have a Certificate of Apprenticeship accounted respectively for only 1,900 and 202 active apprentices. In the non-regulated trades there was a total of 2,474 active apprentices distributed among 123 different trades.

**Table 13**

*Distribution of active apprentices  
by type of trade, March 31, 1972*

Type of trade	Number of trades	Active apprentices
Regulated:		
Compulsory Certificate of Qualification	16	13,985
Voluntary Certificate of Qualification	15	1,900
Certificate of Apprenticeship	2	202
Non-regulated:		
Certificate of Apprenticeship	123*	2,474
Total		18,561

\* This is the number of trades for which some activity was reported during 1971-72 (i.e., one or more apprentices registered, cancelled or completed in each of these 123 trades during that year). Of these 123, 18 had no active apprentices as of March 31, 1972. There are an additional 60 non-regulated trades listed in the Industrial Training Branch's Index of Trades for March, 1972, in which no activity was reported in 1971-72, making a total of 183 non-regulated trades.

Source: Industrial Training Branch, Ontario Ministry of Colleges and Universities.

Table 14

*Active apprentices in regulated trades,  
by type of certification and trade,  
March 31, 1972*

Type of certification and trade	Active apprentices Number	Percentage
<i>Compulsory certification</i>		
Air conditioning and refrigeration	298	1.85
Alignment and brakes	34	0.21
Auto body repairer	704	4.38
Barber	118	0.73
Electrician - construction and maintenance	3,149	19.57
Electrician - domestic and rural	46	0.29
Fuel and electrical systems	29	0.18
Hairdresser	1,034	6.43
Motorcycle mechanic	79	0.49
Motor vehicle mechanic	4,900	30.46
Plumber	1,653	10.28
Sheet metal worker	1,227	7.63
Steamfitter	655	4.07
Transmission mechanic	23	0.14
Truck-trailer repairer	11	0.07
Watch repairer	25	0.16
Sub-total	13,985	86.93
<i>Voluntary certification</i>		
Automotive machinist	52	0.32
Automotive painter	42	0.26
Brick and stone mason	111	0.69
Cement mason	41	0.25
Chef	312	1.94
Dry cleaner	10	0.06
Farm equipment mechanic	36	0.22
General carpenter	720	4.48
Glazier and metal mechanic	51	0.32
Heavy duty equipment mechanic	166	1.03
Lather	116	0.72
Painter and decorator	48	0.30
Plasterer	15	0.09
Radio and T.V. service technician	141	0.88
Service station attendant	39	0.24
Sub-total	1,900	11.81
<i>Certificate of apprenticeship</i>		
Baker	41	0.25
Ironworker	161	1.00
Sub-total	202	1.26
Total	16,087	100.00

Source: Industrial Training Branch, Ontario Ministry of Colleges and Universities.

In Table 14, active apprentices in regulated trades are distributed by type of certification and trade. The 16 trades with compulsory certification accounted for 87 per cent of the registered apprentices. In contrast, those with a voluntary Certificate of Qualification and those that provide accreditation with a Certificate of Apprenticeship accounted for approximately 12 and 1 per cent of the registered apprentices respectively. The importance of trades with compulsory certification is not surprising – in effect the certificate becomes a license that is required in order to work in the trade, and consequently it generates a demand for the apprenticeship program associated with the trade.

Non-regulated trades, the number of active apprentices in them on March 31, 1972, and the number of new registrations during the 1971-72 fiscal year are shown in Table 15. For the majority of these trades, the numbers of both active apprentices and new registrations are so low that one must question whether apprenticeship is their appropriate method of training. In addition, there are 60 additional apprenticeship programs in this category that have not been listed in Table 15 because they had no registered trainees on March 31, 1972.

Similarly, registrations are very low in some of the regulated trades. For truck-trailer repairer and watch repairer, which have compulsory Certificates of Qualification, there are 11 and 25 active apprentices respectively. For dry cleaner and service station attendant, which have voluntary Certificates of Qualification, there are respectively only 10 and 39 active apprentices.

Returning to non-regulated trades, for some, such as machinist, millwright, and tool and die maker, the levels of registration suggest that the apprenticeship programs are meeting significant occupational skill requirements. However, the fact that variation in training requirements between individual employers makes it extremely difficult to set common standards for training in these trade areas indicates that a government-financed and -regulated form of apprenticeship may not be the appropriate training method. Rather, co-operative types of training programs developed by employers in conjunction with local community colleges would be more appropriate. In line with this position, and also to deal with regulated trades that have low levels of



Table 15

Active apprentices at March 31, 1972, and registrations in non-regulated trades for the 12 months prior to March 31, 1972

Trade	Active at March 31, 72	Registered during 71-72	Trade	Active at March 31, 72	Registered during 71-72
Structural steel mechanic	1	0	Scale mechanic	3	0
Precast concrete technician	1	0	Small engine mechanic	3	0
Sheet metal worker - railway	1	1	Instrument maker - scientific laboratory	3	1
Machinist - precision grinder	1	0	Machine repairman	3	4
Industrial mechanic - instrumentation	1	0	Control mechanic - electrical	3	1
Industrial mechanic - printing machinery fitter	1	0	Draftsman - tool and die	4	0
Pipefitter - railway	1	1	Industrial mechanic - petroleum refinery	4	2
Pattern maker - metal spinning	1	0	Industrial mechanic - escalator mechanic	4	3
Pattern maker - model maker	1	0	Industrial mechanic	4	4
Pattern maker	1	1	Electrician - power house operator	4	1
Welder - arc	1	0	Woodworking machinist - millwork	4	3
Welder - fitter	1	1	Building trades (plant) - petroleum refinery	4	1
Boat motor mechanic	1	0	Sheet metal worker - plant	5	4
Foundryman - moulder	1	0	Electrician - motor repair (armature winder)	5	2
Upholsterer - furniture	1	0	Printer - letterpress (job-shop)	5	3
Boilermaker	1	0	Plateworker	5	5
Spring maker	1	0	Pattern maker - wood, metal, plastic	6	3
Optical tool maker	1	0	Plumber - plant	6	0
Die sinker	1	1	Steamfitter - plant	6	5
Jeweller	1	1	Draftsman - mechanical	7	7
Knit machine fixer - hosiery	1	0	Industrial mechanic - pipefitting	7	8
Carpet and tile installer	1	0	Electrician - appliance repair	7	5
Locksmith	1	0	Printer - lithographer (job-shop)	7	5
Precast concrete technician	1	0	Carpenter - plant	7	1
Glassblower - industrial & scientific research	1	0	Bricklayer - plant	7	2
Bookbinder - finisher	1	1	Industrial mechanic - rigger	8	1
Aircraft maintenance technician	1	0	Roll turner - steel mill	8	3
Carman - railway	1	0	Electro-plater	8	4
Pipe organ builder	1	1	Tool maker	8	10
Draftsman - structural steel	2	0	Chemical plant operator	8	0
Draftsman - tool design	2	1	Control mechanic - instrumentation	8	8
Draftsman - plastic mould design	2	2	Insulation installer (thermal and acoustical)	9	3
Machinist - automatic screw	2	0	Horticulture - nurseryman	11	4
Industrial mechanic - plant services	2	1	Electrician - wireman	12	7
Electrician - communications	2	1	Retail meat cutter	13	7
Electrician - railway	2	2	Electrician - motor and equipment repair	14	7
Electronics mechanic - manufacturing	2	0	Industrial mechanic - machinery fitter	15	3
Layout man - structural steel/platework	2	2	Woodwork machinist - cabinet and furniture	16	3
Mouldmaker/die sinker	2	1	Marina and small powered equipment mechanic	31	11
Sign painter	2	0	Electronics mechanic - industrial control	32	9
Mirror maker - glass finisher	2	3	Industrial mechanic - construction millwright	34	27
Equipment maintenance man (seaway)	2	2	Welder - arc and gas	36	15
Industrial air conditioning and refrigeration mechanic	2	2	Industrial mechanic - instrument repair	40	14
Stellite worker	3	0	Horticulture - landscaper	45	14
Sheet metal worker - specialty manufacturing	3	0	Mechanical fitter - Ontario Hydro	68	26
Sheet metal worker - industrial metal fabricator	3	1	Pipefitter - industrial	72	24
Machinist	3	0	Sprinkler and fire-protection installer	128	136
Industrial mechanic - machine tool fitter	3	0	Electrician - power station maintenance	130	63
Industrial mechanic - utility maintenance	3	1	Electrician - plant maintenance	277	166
Pattern maker - wood	3	0	Industrial mechanic - construction millwright	318	63
Shipbuilder - ship-plater	3	3	Machinist - industrial	319	102
Ironworker - plant	3	2	Tool and die maker	596	125
Structural steel mechanic	3	3	Sub-total	2,387	925
Sub-total	87	35	Total	2,474	960

Source: Industrial Training Branch, Ontario Ministry of Colleges and Universities.

participation, the Task Force makes the following recommendations:

**RECOMMENDATION 13**

***That the concept of non-regulated trades under the Apprenticeship and Tradesmen's Qualification Act be dropped and that training in these occupations become an integral part of the training programs developed by employers, with technical assistance from government as appropriate and required. That the agency responsible for delivering technical assistance, when appropriate, to these employer-initiated training programs be the Employer-centred Training Branch.***

**RECOMMENDATION 14**

***That regulated trades with small numbers of active apprentices be dropped from the Apprenticeship Program and that industry assume the responsibility for training in these trades, again with appropriate technical assistance provided by the Employer-centred Training Branch.***

From this brief look at the scope of Ontario's apprenticeship program, it is obvious that the regulated trades are the more important. When one takes a closer look at these trades, however, it becomes evident that government-sponsored apprenticeship is being used as a method of occupational training primarily in two areas: automotive and heavy equipment repair trades, and the construction trades. These two areas account for 26 of the 33 designated trades.

Superficially it would appear that apprenticeship is also very important in the barber and hairdressing trades; however, apprentices in these areas receive most of their training in private trade schools, so it is not apprenticeship in the usual sense. Trainees are registered as apprentices because these trades have compulsory Certificates of Qualification. Consequently, the following recommendation is put forward:

**RECOMMENDATION 15**

***That the barber and hairdressing trades be reviewed by the Employer-centred Training Branch to determine whether, logically, they belong under the Apprenticeship Program or rather should form part of an institutional, classroom-based program.***

There is very little participation in Ontario's Apprenticeship Program by employers in the manufacturing sector of the economy. This may be partly because of alternative sources of skilled manpower, both in the domestic labour market and through immigration, but it probably also indicates the inappropriateness of apprenticeship to the manufacturing sector. This point receives further attention later in the chapter.

## 2. Provincial Advisory Committees

When the potential need for an apprenticeship program is discerned the Minister, under the Apprenticeship and Tradesmen's Qualification Act, can establish a Provincial Advisory Committee (PAC), whose function is to advise on matters relating to the establishment and operation of an apprenticeship program. Members are selected from nominees suggested by employers, unions or other interested parties, and length of appointment varies from one to three years.

The PAC participates in the development of trade regulations, training schedules, and policies for accreditation and apprentice/journeyman ratios. Such activity is usually preceded by a detailed trade analysis undertaken by a sub-committee of the PAC. The PAC also assists in the preparation of provincial trade examinations, and it meets periodically to discuss problems and suggest changes in the training program. All of the recommendations put forward by a PAC are, of course, subject to the Minister's approval.

In the briefs submitted to the Task Force by members of these committees, and in discussion with them, a great deal of concern was expressed over the ineffectiveness of PACs. For example, it was noted on a number of occasions that PAC membership should not be limited to three years because this practice does not encourage continuity, a factor which many believe is vital to the success of the committees. Many members also expressed the belief that recommendations from PACs were too often ignored by the ITB, and that in consequence PAC meetings were futile.

These problems, however, vary with perspective. From submissions made to the Task Force by persons responsible for organizing PACs, and their communications with the ITB, a somewhat different set of issues emerged. In many cases the PAC membership consists of senior executives from large



companies and full-time executives of trade unions. This can give rise to a number of problems. First, since these persons are removed from the shop-floor or job-site their views and advice on trade analysis and training curricula may not be as factual as they should be. Also, given the membership, there is a strong tendency for the PAC to assume the mantle of a management-labour committee and to discuss questions of labour supply and working conditions, even though the PAC's terms of reference restrict it to dealing with training and accreditation. It is therefore not surprising to find that many PAC recommendations are not implemented, since they are not related to apprenticeship as a training program.

An advisory committee system for the development and support of industrial training is essential to ensure relevant and high quality programs. The problem, however, is to devise a system of committees that is sensitive and responsive to training needs, and that allows for the needs and rights of the trainee and takes the public interest into account.

In a number of briefs submitted to the Task Force it was suggested that membership on a PAC be made permanent and that the PAC be given more responsibility and power; that is, that it should not be advisory in nature. However, this is in direct contrast to the Simonett Committee's recommendations in 1963 which brought about the existing PAC format.\* It was then recommended that periodic turnover of PAC members was necessary to avoid an undue adherence to traditional approaches. Further, it was stressed that a PAC should be strictly advisory, rather than play the strong policy formulation role which had developed over the years. It was felt that the latter might reflect the interests of private parties to the detriment of those of both the trainees and the public.

The concerns of the Simonett Committee are still valid today, and consequently it would be unwise to suggest either permanent PAC membership or executive powers for the committees. Rather, it is recommended that the PACs be made more effective through changes in composition and terms of reference:

\* Ontario, Report of the Select Committee on Manpower Training, Hon. J. R. Simonett, Chairman (February, 1963).

#### RECOMMENDATION 16

***That a new Provincial Advisory Committee be established for each trade, or group of designated trades, as appropriate.***

##### ***a. Composition***

***That equal representation be given to employers and employees or their representatives, and that the period of membership on the committee not exceed four years. In addition, that there be at least two representatives of the general public on the committee and that one of them act as chairman. That all members' terms be capable of renewal at the option of the Minister. That the Minister appoint the membership, subject to consultation with the principal trade union and employers' associations in the trade.***

##### ***b. Expenses***

***That each member of a Provincial Advisory Committee be reimbursed for expenses, and be paid a per diem allowance for attendance at meetings.***

##### ***c. Terms of Reference***

***(1) To advise the Minister on all aspects of training apprentices in the trade, including curriculum content, supervision, and administration of training activities. To advise on selection, promotion, content of in-class and on-the-job training, subdivision or specialization of the trade for training purposes, and other related matters on the initiative of the committee.***

***(2) To review the results of periodic job analyses in each trade, to provide advice on the skill and knowledge content of the trade and, in particular, to recommend whether or not the trade should be subdivided for training purposes.***

***(3) To review periodically an evaluation of training in each trade in terms of the effectiveness and efficiency of training, and of improvements shown to be desirable by the results of the review.***

***(4) To consider reports from Local Advisory Committees on the implementation of apprenticeship training in each area to determine whether there are improvements which would be appropriate for general application.***

***(5) To consider whether the number in training in the trade is adequate to meet future requirements, on the basis of information received from the Labour Market and Vocational Information Service of the Ministry and other sources, with a view to making recommendations to employers, unions and the Apprenticeship Division on such***

**matters as entrance standards, ratios of apprentices, and other factors affecting the level of apprenticeship enrolment. Reports on the labour market outlook in the trade for the province to be reviewed and the findings and any resulting recommendations to be published on a periodic basis.**

### 3. Local Apprenticeship Committees

The Director of the ITB has the power to appoint a Local Apprenticeship Committee (LAC) for a trade in any area of Ontario to provide him with advice and assistance on matters relating to apprenticeship or tradesmen's qualifications. Employers and employees or their representatives are equally represented on LACs, and membership can not exceed two years. The ITB encourages LACs to have members who represent local educational institutions. Canada Manpower Centre officials serve on the committees as advisors.

A LAC's permissible functions are very broad, as will be seen from the following list:\*

- (1) To make recommendations on local problems and conditions related to or pertaining to the Apprenticeship and Tradesmen's Qualification Act.
- (2) To promote apprenticeship training by working in close liaison with local educational authorities, employers and Canada Manpower Centres, and by assisting prospective apprentices in gaining entry into their chosen trade.
- (3) To interview apprentice applicants and screen applications.
- (4) To register and indenture apprentices, in which case the LAC acts as the employer.
- (5) To resolve amicably all disputes regarding Contracts of Apprenticeship or transfers of Contracts.
- (6) To make inquiries about apprentice absenteeism from work and non-attendance at trade school.
- (7) When a complaint is made and/or an investigation is ordered, to screen or review the eligibility of an applicant for a Certificate of Qualification.

\* This information has been drawn from manuals prepared by the Industrial Training Branch for administrative purposes.

(8) To make recommendations to the ITB on the basis of a review of work experience and/or training of tradesmen and persons seeking certification in certain areas as specified periodically.

(9) To encourage upgrading courses for journeymen.

(10) To organize annual apprentice graduation banquets.

(11) To make enquiries and supply information to the ITB on trade regulations and other information as indicated.

(12) To initiate and participate in activities aimed at preservation and maintenance of high standards of training and performance by journeymen.

It is evident that the LAC mandate, "to advise and assist the Director," has taken on a broad interpretation, and it is questionable whether a local committee, advisory in nature, should exercise some of the functions listed above. Advising the Director on local conditions and their effects on an apprenticeshipable trade is undoubtedly an important LAC function, especially in a large province like Ontario which has substantial regional variation. Providing information on economic and technological changes and advising the Director of their potential impacts on training curricula and trade regulations is another important function of advisory committees, as is undertaking promotional work for apprenticeship.

When a Local Advisory Committee has the power to screen apprenticeship applicants, review the training and experience of workers seeking accreditation in a trade and make recommendations on them, and monitor apprentices' progress, its advisory nature becomes somewhat fictional. The powers given to the ITB as a government agency under the Apprenticeship and Tradesmen's Qualification Act are thus in effect delegated to the private members of advisory committees, a situation that is very questionable from a public point of view.

These functions of LACs become even more questionable when one realizes that no provision has been made for a representative of the public interest at large to have full membership on a committee. A LAC is usually composed of employer and trade union representatives and, as will be seen later in the chapter, both groups have private aims which can be at variance with the best interests of trainees and in conflict with public goals. For example,



employers have been known to participate in training programs and to opt for large numbers of trainees only as a device for obtaining cheap labour. On the other hand, craft unions, in order to protect employment and income for their members, sometimes tend to use various mechanisms to control entry into a trade, one of these being artificially high entrance requirements for apprenticeship programs.

The practice of permitting LACs to enter into Contracts of Apprenticeship with apprentices also creates concern. It is intended to enable the apprentice, under LAC guidance, to move among employers as work-loads fluctuate to ensure that he receives adequate on-the-job training and to give him as much employment stability as possible. When the characteristics of a trade in a particular area of Ontario necessitate this device to ensure adequate training and employment for an apprentice, it is a laudable practice. However, the information available to the Task Force from apprenticeship program administrators suggests that the majority of the approximately 325 apprentices indentured to LACs stay with one employer. It is therefore appropriate to question why most of these 325 apprentices are indentured to LACs when they remain with one employer. In this situation the LACs become an unnecessarily complicating factor in the administration of the Apprenticeship Program.

In keeping with earlier recommendations on organizational structures and to bring about a necessary realignment of responsibilities, the following changes with respect to the role of LACs are recommended:

#### **RECOMMENDATION 17**

***That Local Apprenticeship Committees be disbanded and in their place a system of Regional Apprenticeship Committees on a community college area basis be established:***

- (i) that equal representation be given to employers and employees or their representatives; that there be at least two representatives from each side; that the term of membership not exceed four years. In addition, that there be a minimum of two apprentices on the committee plus a representative from the local community college;***
- (ii) that the Regional Apprenticeship Committees report to the Provincial Advisory Committees;***

***(iii) that each member of a Regional Apprenticeship Committee be reimbursed for expenses and be paid a per diem allowance for attendance at meetings;***

***(iv) that the functions of the Regional Apprenticeship Committees be restricted to providing information and advice on local conditions; unique characteristics or developments within the region; their effects on apprenticeship training in a trade; the necessary adjustments that should be made to maintain the viability and relevance of the apprenticeship training program;***

***(v) that while the Regional Apprenticeship Committees should provide information and advice on the entry level requirements of entrants into apprenticeship, and the standards that should be met before a person is granted certification in a trade, the responsibility for screening applicants and reviewing the qualifications of workers who apply for certification should remain solely with the Apprenticeship Division of the Employer-centred Training Branch;***

***(vi) that the practice of permitting apprentices to be indentured to advisory committees be allowed only when the characteristics of a trade in a particular area necessitate that an apprentice must move among employers to obtain adequate on-the-job training. That when a request for this type of arrangement is received, the Apprenticeship Division of the Employer-centred Training Branch initiate an independent study to determine whether there is a real training need for the arrangement. That when the practice is permitted, the Regional Apprenticeship Committee create a special sub-committee to be responsible for the Contract of Apprenticeship.***

#### **4. Determination of the Need for a New Apprenticeship Program**

At present, when the ITB wishes to determine the need for an apprenticeship program, it sets up a Steering Committee composed of interested parties from the industry. If the Steering Committee's report is favourable, a PAC is established to develop a program. However, this procedure creates the risk that training needs will become confused with problems that cannot be solved by apprenticeship programs, such as low wages or seasonal employment patterns giving rise to high labour turnover. Two appropriate examples are the trades of service station attendant and landscape gardener. Apprenticeship training programs for these occupations have been established in recent years but, given

their characteristics, the need for formal programs is questionable. To avoid this type of risk, the following procedure is recommended to determine the need for apprenticeship training programs:

**RECOMMENDATION 18**

- a. That a Temporary Advisory Committee be established of representative employers and employee organizations in the trade, together with several members representing the public interest if the Minister, on the advice of the Employer-centred Training Branch, is satisfied that there are sufficient grounds to warrant that a review and study be made.**
- b. That a report be prepared on the need for an apprenticeship program in terms of labour market requirements in the trade and the appropriateness of apprenticeship training for the trade, the report to be based on an independent study.**
- c. That the Temporary Advisory Committee review the findings of the above study and make a recommendation to the Minister on whether or not the trade should be designated for the purpose of apprenticeship.**

**5. Apprenticeship Counsellors**

Under the present administration of the apprenticeship program, the apprenticeship counsellor has many different duties. As we have already seen from the description of the functions of the ITB, these duties range from salesman to policeman, so the counsellor's job is extremely difficult.

One of the counsellor's important functions is to promote apprenticeship among employers and attempt to place new trainees with them. If an employer agrees to hire a new apprentice, and the counsellor is satisfied that he can furnish on-the-job training in accordance with the trade regulations, then it is the counsellor who supervises the signing of the apprenticeship contract.

In addition to publicity work among employers, the counsellor is responsible for promoting apprenticeship among potential candidates, advising them on minimum entry requirements and the career patterns and benefits that can arise from successful completion of apprenticeship programs. He is

expected to advise those trainees who run into problems during the apprenticeship period on the best course of action. Further, it is the counsellor's duty to police firms to ensure that on-the-job training meets minimum standards, and that apprentices are working for the required number of hours at the appropriate wage rates.

The counsellor is also required to check work-sites to ensure that all persons occupied in compulsory certification trades are either certified journeymen or registered apprentices. If a worker is found to be neither, the counsellor is required to arrange for him to take the Certificate of Qualification examination, or to enrol in the apprenticeship program, or to leave the trade.

From this description it is evident that the apprenticeship counsellor's role is very complex. He is a salesman (of a training system to both employers and prospective trainees), a counsellor (for trainees enrolled in the system), an inspector (of the quality of their training), an enforcer (of minimum legal working conditions), and a policeman (for an occupational licensing system). Given such diverse duties, one must question whether, even with extreme dedication, it is humanly possible to discharge them efficiently.

To aggravate the situation, there are serious conflicts between the counsellor's functions. Clearly, the role of the enforcer of minimum working conditions undermines the counsellor's capacity to promote and monitor the apprenticeship training program. On this aspect the following recommendation is made:

**RECOMMENDATION 19**

***That a contractual arrangement be made between the Ministry of Colleges and Universities and the Ministry of Labour whereby the Employment Standards Branch of the Ministry of Labour would enforce minimum legal working conditions for registered apprentices.***

The Employment Standards Branch is already responsible for the enforcement of minimum legal working conditions, as specified under Ontario's Employment Standards Code, and has a large field staff responsible for payroll inspections throughout the province. As a result, it would be most efficient for this branch to inspect working conditions for registered apprentices on behalf of the Apprenticeship Training Division.



The responsibility for inspection and enforcement of occupational licensing also inhibits the counsellor's ability to develop and monitor training, and to counsel trainees. A recommendation on this point is not made here, however, because the topic of occupational licensing is thoroughly reviewed in Chapter 10.

## 6. The Labour Market Context of Apprenticeship

Apprenticeship is a method of occupational skill development that combines on-the-job training with classroom instruction. In Ontario the on-the-job training component takes priority, and it accounts for approximately 90 per cent of the total apprenticeship period. The apprenticeship training system can therefore function only as a form of employment – that is, the trainee cannot be trained if he or she is not employed. This characteristic gives rise to a number of situations that undermine the effectiveness and efficiency of the training program. For example, cyclical swings in production and employment influence the flow of apprentices through the system, with a resulting adverse effect on the supply of competent workmen over a longer period. Further, the efficient operation of the system requires the co-operation of two critically important parties in the labour market – employers and unions. Their attitudes and practices may or may not be compatible with the trainees' interests or with the public policy goal of developing a competent and adequate supply of skilled workers. Both these issues are reviewed in this section.

### a. Impact of Changes in Employment Opportunities

Some insight into the impact of changes in employment opportunities on the flow of apprentices through the training system can be obtained by examining the relationship between new apprentice registrations and unemployment. This relationship is explored for three selected trades:\* construction electrician, construction carpenter, and motor vehicle repair mechanic. These were chosen because

\* No attempt is made here to examine the impact of changes in employment opportunities on the total flow of apprentices through the system. Over time, total apprentice registrations can be affected by the addition of trade categories, the introduction of compulsory certification for existing trade categories and other institutional changes that can cause substantial variations in total registrations that are independent of fluctuations in employment.

they represent a good cross-section of the more important apprenticeable trades. Construction electricians have a strong and wide-ranging union organization, especially in urban areas, while carpenters have a less strong and pervasive organization, and motor mechanics are virtually without union representation in Ontario. In addition, motor vehicle repair mechanics and construction electricians are subject to compulsory certification, while certification in the carpentry trade is only voluntary. There is also an important difference in the nature of the final product market that is faced by employers in these three trade areas. The construction contractors, who employ electricians and carpenters, put out a product which has few substitutes and which is, in most situations, a necessity. As a result, demand for this product is not very sensitive to price increases. In comparison, the consumer demand for motor vehicle repair tends to be more dependent on price increase because this service is not an absolute necessity. The final consumer, the car owner, can postpone buying repair services, or can substitute his own time and energy for the work of a mechanic.

Annual apprentice registrations for selected trades, together with Ontario unemployment rates,\* are presented in Table 16 for the period 1957-70. To facilitate comparison, these series were converted into indexes with the average value for 1964-66 equal to 100.

Comparison tends to indicate that apprentice registrations vary inversely with changes in employment conditions. In general, periods of low employment opportunity (high unemployment) are associated with low levels of registration. Conversely, when unemployment declines registration increases.†

\* Ideally, more specific measures of employment opportunities in each trade should be used. However, such measures are not available from existing sources of data and it was necessary to use the Ontario unemployment rate as a measure of the state of employment opportunities.

† The relationship between changes in employment conditions and apprentice registrations for each trade can be denoted using the Spearman coefficient of rank correlation. In each case the coefficient took a negative sign and the value of the coefficient was 0.68, 0.70 and 0.83 for carpenter, motor mechanic and electrician respectively (all significant at the one per cent confidence level). These measures suggest that swings in employment opportunities have a very substantial influence on apprentice registrations.

Table 16

Indexes\* of new apprentice registrants in the trades of construction electrician, carpenter and motor vehicle repair mechanic, and indexes of annual average unemployment, Ontario, 1957-70

Year	Construction electrician		Carpenter		Motor mechanic		Average annual unemployment	
	Number	Index	Number	Index	Number	Index	Rate	Index
1957†	365	48.5	116	64.6	701	43.8	3.4	124.5
1958	337	44.7	113	62.9	642	40.1	5.4	197.8
1959	292	38.8	118	65.7	867	54.1	4.5	165.8
1960	287	38.1	58	32.3	946	59.1	5.4	197.8
1961	278	36.9	77	42.8	937	58.5	5.5	201.5
1962	304	40.4	68	37.8	1,140	71.2	4.3	157.5
1963	419	55.6	76	42.3	1,330	83.0	3.8	139.2
1964	472	62.7	148	82.4	1,632	101.9	3.2	117.2
1965	659	87.5	164	91.3	1,363	85.1	2.5	91.6
1966	1,129	149.9	227	126.3	1,810	113.0	2.5	91.6
1967	914	121.3	197	109.6	1,613	100.7	3.1	113.6
1968	751	99.7	174	96.8	1,795	112.1	3.5	128.2
1969	928	123.2	243	135.2	1,848	115.4	3.1	113.6
1970	718	95.3	223	124.1	1,485	92.7	4.3	157.5

\* For all indexes, 1964-66 = 100. All indexes are derived from the numbers presented in the trade.

† 1957 is the fiscal year April 1, 1957 to March 31, 1958.

Sources: Ontario, Department of Labour, *Annual Reports* (1958-71); Statistics Canada, *Canadian Statistical Review*, cat. no. 11-003.

Given these results, we must raise the question of whether the apprenticeship system, as constituted at present, has a destabilizing influence on the longer-term supply of skilled tradesmen. Since the intake of new apprentices declines in periods of recession, there is a real danger that a shortage of graduating apprentices will emerge during a period of expansion two to four years later. Conversely, if boom conditions stimulate a large increase in apprenticeship registrations, an oversupply of graduate apprentices may arise in several years' time if a recession occurs. This chain of events can seriously damage manpower planning efforts and is of particular importance for the Ontario apprenticeship program because so many apprentices are registered in construction industry trades.

The large and persistent swings in production and employment that are characteristic of the construction industry have been well documented in other analyses.\* The instability of the industry, coupled with the fact that apprenticeship as a system of training is operational only if an apprentice is employed, can undermine attempts at increased

stability in apprenticeship registrations and can also create difficulties for trainees in the system.

Under the program, there is a Contract of Apprenticeship between apprentice and employer that is approved by and registered with the Ontario government. According to the contract, "the apprentice agrees to faithfully serve the employer" and "the employer agrees to faithfully train and instruct the apprentice." However, within the framework of a relatively free labour market and cyclical swings in production and employment, contracts tend to break down.

During periods of economic expansion and attractive alternative employment opportunities, the apprentice does not feel bound to stay with his employer; likewise, an employer can dismiss an apprentice in times of recession. Since the duration of the apprentice's training period is defined in terms of number of training hours, his training program effectively ceases during each spell of unemployment. These circumstances lead to substantial increases in costs to the individual trainee which are attributable not only to loss of earnings while unemployed, but also to increase in time

\* See Frank Wildgen, "Economic Aspects: Work, Income and Cost Stabilization," in H. Carl Goldenberg and John H. G. Crispo, eds., *Construction Labour Relations* (Canadian Construction Association, 1968).



during which he is classified as an apprentice and is therefore eligible to receive only a proportion of a journeyman's going wage. Further, if unemployment during the apprenticeship period is a factor contributing to drop-out of apprentices, there is additional cause for concern because it undermines the efficient use of private and public training resources.

Some insight into the incidence of apprentice unemployment can be obtained from data collected as part of a special survey of apprentices in Ontario's mechanical construction trades.\* As shown in Table 17, the proportion of apprentices in this industry that experienced some unemployment was very high and tended to increase with each period of apprenticeship.

The limited statistics on apprenticeship cancellations available from operational records have made it impossible to examine, meaningfully, the relationship between apprentice cancellation rates and changes in economic conditions. Studies in other jurisdictions, however, support the contention that an apprentice's progress through the system is severely hampered by unemployment, and that this important factor is responsible for high apprentice drop-out rates. In a study of factors determining enrolments and drop-outs in the Quebec apprenticeship program, it was concluded that the most important cause of drop-outs was the unemployment experienced by trainees.† A study in the United States has found that more new apprentices were

hired when employment was low rather than high.\*

The very heavy emphasis given to on-the-job training, plus the volatile nature of employment in many of the important apprenticeable trades, leads to an increase to the trainee in the costs of training and contributes to the problem of apprentice drop-outs. In part, this situation can be circumvented through more flexible use of institutional classroom instruction to combat the negative effects of employment instability.† We therefore make the following recommendation:

#### RECOMMENDATION 20

***While it is recognized that there must be minimum, predetermined amounts of on-the-job and classroom training, the Task Force recommends that the classroom training component of apprenticeship be permitted to vary with employment opportunities in the trade. Specifically, that an apprentice be placed in a community college program which is related to his trade when he becomes unemployed during periods of decline in production. That during such periods of in-school instruction, apprentices receive an income allowance equal to 80 per cent of their average weekly wages during their previous six months of employment.***

While minimum amounts of classroom and on-the-job training would be required, under Recommendation 20 these components would vary with the employment-unemployment experiences of individual apprentices. Further, this recommendation is related to the principle that graduation from apprenticeship and accreditation as a journeyman not be rigidly contingent on having served specified periods of time as an apprentice. Rather, an individual's own pace of acquiring the necessary skills and knowledge, both on-the-job and in-school, should be a major determinant of the amount of time served as an apprentice. While the Task Force is not prepared to make a specific recommendation on this issue of flexibility, it does suggest that serious consideration and analysis be devoted to the achievement of this objective.

**Table 17**

*Distribution of apprentices in Ontario's mechanical trades who had experienced unemployment, by period of apprenticeship and number of times unemployed.*

Period of apprenticeship	Percentage with some unemployment	Number of times unemployed		
		Once	Twice	More than twice
Period 1	38.6	77.3	*	*
Period 2	32.7	62.3	26.4	11.3
Period 3	47.7	46.5	26.8	26.8
Period 4	49.2	42.5	28.7	28.7
Period 5	40.3	48.4	16.1	35.5

\* Samples underlying estimates were too small to be meaningful.  
Source: Research Branch, Ontario Ministry of Labour.

\* This survey was undertaken in 1969 by Statistical Data Services for the Research Branch, Ontario Department of Labour.

† Jean Bernier, *Apprenticeship in Quebec: Factors Determining Enrolment and Drop-Out* (Research Branch, Quebec Department of Labour).

\* David J. Farber, "Apprenticeship in the United States: Labour Market Forces and Social Policy." *Journal of Human Resources* (winter, 1967), p. 70.

† The appropriateness of the present distribution of training time between on-the-job and classroom training is also open to question. This is dealt with later in the chapter.

In line with Recommendation 20, the classroom instruction training should be given to most construction apprentices during the winter months because of the timing of the seasonal swings in employment in their trades.

The Task Force appreciates that implementation of the recommendation on income allowances for apprentices during periods of in-school instruction will require its adoption by the Canada Department of Manpower and Immigration, or the payment of supplements to the federal allowances by the Ontario Ministry of Colleges and Universities.

#### *b. Craft Unions*

As noted in Chapter 2, Ontario's construction craft unions were key proponents of the expansion and improvement of apprenticeship training and were influential in the passing by the Ontario legislature of the first Apprenticeship Training Act. Craft unions believe strongly that apprenticeship is the best method for developing occupational skills. As we shall indicate later, craft unions in Ontario have developed their own programs to improve the quality of the graduate apprentice and to upgrade the skills of journeymen in response to technological developments.

To appreciate fully the interest of the craft unions in apprenticeship, it must be realized that this interest is directly related to their major responsibility, which is the maintenance and improvement of wage levels and security of employment and income for their members. By strongly influencing the apprenticeship training system, a considerable measure of control over trade entry can be secured, strongly reinforcing the craft union objective of job security. Also, craft competence can be standardized to minimize the threat of wage rates being undercut by less skilled workers. As well, by providing a definition of occupational content, the apprenticeship training program strengthens the craft unions' jurisdictional claims to a well-defined area of work and strengthens their ability to supply competent craftsmen through the union hiring halls. It is perhaps not too extreme to say that the craft unions make, and maintain, crafts in occupational areas that would otherwise be families of closely-related jobs with considerable labour mobility among them.

As a result of changes in production methods one would normally expect fragmentation of skills, greater specialization and lower skill requirements in some areas of a craft. For a craft union to survive, it must guard against such developments. Fragmentation and dilution would undermine its existence because its jurisdictional claim to a well-defined area of work would be greatly weakened. The interest in and support for apprenticeship among the craft unions must be understood in this context; otherwise, the importance they attach to this system of training would appear to result from a stubborn adherence to traditional approaches, rather than from enlightened self-interest.

The following description of some of the ways in which craft unions in Ontario have sought to strengthen and influence apprenticeship training programs is restricted to their activities in the construction industry. This may seem somewhat narrow, but in fact it covers the largest area of Ontario's apprenticeship training apart from the automotive repair trades, which have no unions.

Unions, in co-operation with employers, have sponsored supplementary training to improve the quality of the apprenticeship training program. Two of the more outstanding efforts in this area are the "Keep Pace Program" for the mechanical construction trades and the "Supplementary Training Program" for the electrical trades.

The Keep Pace Program is sponsored jointly by the United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada, Local 46, and the Mechanical Contractors Association of Toronto.\* It is conducted for members of Local 46 of the United Association, and is designed to assist apprentices to qualify for the provincial trade certificates and to keep journeymen up to date with new skills and techniques. Courses are given in the evenings and on Saturday mornings and some of the subjects covered are: blueprint and drafting, trade-related mathematics and sciences, welding, estimating, layout and design, controls, rigging and hoisting, and supervision.

In the electrical trade, supplementary training classes for Toronto apprentices are sponsored by the

\* For details see *A Review of the Keep Pace Program (1970)*, prepared for the Research Branch, Ontario Department of Labour, by Resource Management Consultants.



Joint Apprenticeship Council of the Electrical Contractors Association of Toronto, and Local 353 of the International Brotherhood of Electrical Workers. These classes are intended to supplement on-the-job apprentice training. They are held during the evening or on Saturdays and both theoretical and practical subjects are taught. Attendance is compulsory, and for each hour spent at these classes an hour's apprenticeship credit is recommended.

Besides their activities to improve the quality of graduate apprentices, craft unions influence other aspects of apprenticeship training either through participation on LACs or through the administration of apprentice-journeyman ratios. The Joint Apprenticeship Council for the Electrical Trade in Toronto is a good example of a LAC which administers many aspects of the apprenticeship program. A candidate for apprenticeship in the organized sector of the electrical trades in Toronto may initially contact the ITB, Local 353 or an electrical contractor, but in all cases he is referred to the Joint Apprenticeship Council. The council interviews the candidate, reviews his qualifications and administers an aptitude test. If the candidate is accepted, he is permitted to commence work for a contractor only after obtaining approval from Local 353 and after completing a three-day safety and orientation course. At this point the council files an application-for-apprenticeship form with the ITB.

While the number of new apprentice registrations in the construction trades depends to an important extent on the level of economic activity, it can be modified by institutional practices in the organized sector of the industry. For example, when the union organization is strong and the union hiring hall is the key source of skilled workers, craft unions can refuse to accept any new apprentices if existing apprentices are unemployed.

In applying the apprentice-journeyman ratio, a journeyman is defined to be a full member of the union. Consequently, skilled workers who are not full union members, but are permitted to work out of the union hiring hall when the demand for labour exceeds the supply available from its ranks, are not included in the base journeyman figure when the ratio is applied at the individual employer level. Therefore, during highly active periods the ability of employers to hire additional apprentices is not enhanced, even though the number of skilled workers hired from the union has increased.

As already noted, the various activities of craft unions that are designed to influence the character of apprenticeship training reflect a deep concern with jurisdictional claims to defined areas of work, and with their own ability to supply competent workers to employers through the union hiring halls. Those practices that have been developed by the construction craft unions to influence entry into the apprenticeship system reflect their desire to protect employment and income for their members in an industry that is inherently unstable. Instability of production and employment has been aggravated further by government use of the construction industry as a lever to dampen or stimulate the economy. In effect, construction craft unions, through various mechanisms to influence labour availability, attempt to maintain a balance between the demand for and supply of labour in an industry with a very seasonal and cyclical employment pattern. The costs to society of these restrictions are probably much less than they would be if the forces of supply and demand were permitted to operate in a completely uncontrolled fashion in the construction labour market.

The costs to society of craft union insistence on one level of competence within a well-defined jurisdictional area of work can, however, be very high, while the benefits accrue only to a relatively few private parties. Some of these costs will be discussed in subsequent sections of this chapter. While they can be identified in a general way, and while it can be argued that, ideally, different levels of proficiency within a trade area should be recognized, it is unrealistic to expect construction craft unions to move independently in this direction unless instability of employment can be greatly modified in their industry. The position of the unions on this matter is that an all-round journeyman has a much better opportunity of maintaining employment in a very volatile employment situation than a worker with only a narrow and specialized skill.

### c. Employers

Given the nature of apprenticeship, the willingness of employers to hire apprentices and provide adequate on-the-job training for them is a critical factor. The information available to the Task Force suggests that in general many employers are adverse to the idea of hiring apprentices. Of course, many do participate, but after hearing and reading the comments of both employers who do and do not hire apprentices, it becomes questionable if one of the

traditional principles underlying the apprenticeship system is still valid in Ontario.

Historically, an employer's incentive to hire an apprentice was based on his knowledge that the costs associated with low productivity during early training would be more than offset by the benefits that would accrue in the later stages of training when the apprentice's productivity was greatly increased, but his wage was still relatively low. The employer was sure of capturing these benefits because the apprentice was indentured to him, and the indenture could be rigorously enforced by law.

Under the present system in Ontario, an apprentice receives 40 per cent of the journeyman's wage during the first period of training, and 60 and 80 per cent during subsequent periods. This arrangement was introduced to attract more apprentices, but it implies that the trainee's productivity, measured as a proportion of the journeyman's, increases by 20 per cent during each period of training. The truth of this implication is questionable. More important still, the arrangement may effectively undermine the employer's ability to recapture even his training costs, let alone obtain a net benefit from his participation in the apprenticeship program.

The situation becomes even more serious when one realizes that many of the skills fostered by employers are general; that is, there are many other employment situations in which the trainee can apply them. This, coupled with the fact that the apprentice in Ontario is really free to leave his employer at any time and seek employment elsewhere, helps to make participation in the apprenticeship program most unattractive to cost-conscious employers.

While employers do not usually advance these arguments for non-participation in apprenticeship, a knowledge of the differences between the traditional and the contemporary apprenticeship systems does help to explain many of their comments. For example, many employers stated they were adverse to apprenticeship because it was too costly, while others, especially in motor vehicle repair, saw it as a very risky proposition because of high labour turnover. Employers who do hire apprentices also made similar complaints, and were it not for the

existence in many trade areas of compulsory certification, which restricts employers to hiring either certified journeymen or registered apprentices, one might suspect strongly that a large number of participating employers would drop out of the Apprenticeship Program.

The present cost distribution within the Apprenticeship Program should therefore be reviewed, and we shall deal with it in the section on financing later in this chapter.

#### *d. Apprentice-Journeyman Ratio*

The apprenticeship-journeyman ratio also reflects the heavy emphasis given to on-the-job training for apprentices. Under the general regulations of the Apprenticeship and Tradesmen's Qualification Act, an employer can hire one apprentice for the first journeyman on his payroll and one additional apprentice for each three additional journeymen he employs. These regulations are designed to prevent employers from using apprentices as a source of cheap labour. The ratios specified determine the maximum number of apprentices an employer may hire; however, the present practice is to permit these ratios to be superseded by those set for individual trades on the advice of PACs.

The ratios that have been set for each trade, through specific trade regulations, are reviewed in Table 18. For many trades the general ratio of one apprentice to three journeymen applies, but there are a number of marked exceptions which merit comment. Automotive machinist and motorcycle mechanic are trades with a 1:2 ratio, which is more liberal than is the general ratio. For farm equipment mechanic the ratio is 1:1, and it is extremely liberal for watch repairer, 2:1. After investigating why ratios in some trades were higher than permitted by the general regulations, it would appear that while in some cases there may be legitimate reasons, in others employers may have too strong an influence on the ratio level, and thus may undermine its aim to prevent the use of apprentices as a source of cheap labour.

Farm equipment mechanic is a newly-regulated trade and the high ratio of 1:1 has been adopted temporarily to encourage training in the area. The ratio of 1:2 for motorcycle mechanic was adopted because employers in this trade are extremely small and employment is highly seasonal. The underlying rationale is open to question. The high ratio of 1:2 for automotive machinist, and the even higher ratio



of 2:1 for watch repairer, do not appear to be related to any unique circumstances which would justify them on the basis of training needs. Rather, they appear to reflect the efforts of employers, who are not opposed by strong union representation on the PAC, to obtain a supply of labour on very favourable terms.

At the other extreme are the very low ratios found in the construction industry trades where the craft unions have a great deal of bargaining power. For example, the ratio is 1:5 for many of these trades and reaches a high of 1:7 for ironworker. Undoubtedly, these low ratios reflect the instability of production and employment in the construction industry and a consequent desire on the part of the craft unions to stabilize, as far as possible, employment and income for their members by restricting trade entry. One cannot fault the unions for attempting to maintain an adequate balance between supply and demand, especially in light of the fluctuating demand for the services of their members.

It is legitimate, however, to question whether private parties should be permitted to manipulate the labour supply to meet their own interests by influencing government regulations on ratios that are part of an occupational training program. When this occurs, the supply of labour tends to be regarded as more important than training, to the detriment of the efficiency of programs designed to both educate trainees and meet economic needs. In addition, the liberal or restrictive characters of ratios reflect the relative strengths of opposing parties represented on a PAC, which is undesirable from a public interest point of view. The Task Force, therefore makes the following recommendation:

#### RECOMMENDATION 21

***That the general ratios set under the Apprenticeship and Tradesmen's Qualification Act be the legal ratios for each trade, that is, that neither higher nor lower ratios be permitted through special trade regulations.***

This change would help ensure that the purpose of the ratios – to prevent employers from using apprentices primarily as a source of cheap labour – would be achieved. It would also remove the private party practice of imposing rigid restrictions on labour supply by influencing government regulations.

**Table 18**

*Ratios of apprentices to journeymen for regulated trades*

Trade	Ratio
Alignment and brake mechanic	1:3
Auto body repairer	1:3
Automotive machinist	1:2
Automotive painter	1:3
Baker	1:2
Barber	1:3
Brick and stone mason	1:5
Carpenter	1:5
Cement mason	1:4
Chef	1:2
Dry cleaner	1:3
Electrician – construction and maintenance	1:3
Electrician – domestic and rural	1:3
Farm equipment mechanic	1:1
Fuel and electrical systems mechanic	1:3
Glazier and metal mechanic	1:4
Hairdresser	1:3
Heavy duty equipment mechanic	1:3
Ironworker	1:7
Ironworker – curtain wall and ornamental	1:5
Lather	1:5
Motor vehicle mechanic	1:3
Motorcycle mechanic	1:2
Painter and decorator	1:5
Plasterer	1:5
Plumber	1:3
Radio and T.V. service technician	1:2
Refrigeration and air conditioning mechanic	1:5
Sheet metal worker	1:4
Steamfitter	1:5
Service station attendant	1:3
Transmission mechanic	1:3
Truck-trailer repairer	1:3
Watch repairer	2:1

\* For each trade the employer is permitted one apprentice for the first journeyman on the payroll. The only exception is watchmaker, where the ratio is 2:1. Source: Industrial Training Branch, Ontario Ministry of Colleges and Universities.

It should be stressed that Recommendation 21 would not eliminate the apprentice-journeyman ratio as a collective bargaining issue, nor the possibility of incorporating into collective agreements ratios that are more restrictive than the general ratios specified under the Apprenticeship and Tradesmen's Qualification Act. In fact, this occurs at present, and it is appropriate that such ratios be developed through collective bargaining rather than through government regulation, for it is in the collective bargaining area that questions of labour supply, which affect the income and employment of workers, should be settled.

There are many who will not agree that when strong craft unions exist the number of trainees entering a trade should be ultimately determined through collective bargaining. There have been numerous criticisms, particularly in the building trades, that the supply of graduates from apprenticeship is inadequate to meet the needs of the economy. Accusations have been made that craft unions have deliberately created a shortage that has led to inflationary wage trends. Given these views, it would be tempting to suggest that ratios which regulate the number of trainees entering a trade be determined by an agency that considers both private and public interests on the basis of projections of both labour supply and demand.

The validity of these criticisms is extremely difficult to appraise. The Task Force has not been in a position to make a systematic assessment of the supply of graduate apprentices, relative to the requirements of the Ontario labour market. This would have to be done on a trade-by-trade basis, and in the analysis, large elements of judgment would be necessary.

Because of the instability of the construction industry, it would be a most difficult, if not impossible, task to make an accurate forecast of its manpower requirements. Partly because of insufficient confidence in existing technical capacities to forecast future manpower requirements, the Task Force has refrained from recommending that government assume the responsibility for regulating the number of trainees entering apprenticeship. Public responsibility for such regulation would also include taking the consequences for the results of the apprenticeship system with respect to surpluses or shortages of journeymen.

In the construction industry this responsibility is now largely assumed by employers and unions through collective bargaining arrangements. Because of unstable employment in the building trades, unions have sought to control the labour supply to avoid considerable surpluses of manpower during periods of slack demand. The Task Force believes that it is not in a position to criticize trade union policies which are designed to create greater stability of employment for their members, as distinct from policies designed to inflate wages to economically undesirable levels. Unfortunately, given the institution of collective bargaining and the response mechanisms in the labour market, it is virtually impossible to separate these two effects.

## 7. The Quality and Relevance of Apprenticeship

### a. *Mix of On-the-job and Classroom Training*

Apprenticeship combines on-the-job and classroom instruction, which is an excellent approach to training for skills beyond the purely manipulative. In this method of training there is usually room for a trade-off between the two components which provides the curriculum designer with the flexibility to choose the most effective and efficient combination.

In Ontario's apprenticeable trades approximately 90 per cent of the training time is spent on-the-job and 10 per cent is allocated to classroom instruction. Depending upon the nature of the tasks that comprise a trade and the content of the training curriculum, this distribution may be wise or unwise.

The wisdom of placing such a heavy emphasis on on-the-job training, when the scope and quality of that training can be seriously affected by the dictates of the market place, also requires examination. There is a strong tendency for employers to specialize, which can seriously hamper the program's capacity to develop an all-round competent journeyman through on-the-job training.

For example, specialization is fairly far advanced in the motor vehicle repair trade, especially in the large urban areas. Toronto gasoline service stations employ approximately 40 per cent of the local apprentices, but these garages usually specialize in electrical and carburetor work and rarely undertake transmission work, large-scale engine repairs or front end alignment. How can an apprentice working in this environment obtain the full measure of on-the-job training specified in the trade regulations? There is a similar problem in the construction industry where sub-contractors tend to specialize in certain activities.

Information obtained through field interviews indicates that, even when a firm operates in all branches of a trade, specialization within it can give rise to insufficiently comprehensive training. When an apprentice becomes proficient in one or two operations it becomes beneficial from the employer's viewpoint to confine him to them for an excessive period. In the motor mechanic trade, where a flat rate system of payment is widespread, it can be beneficial to the apprentice, in terms of his current income, to specialize in a narrow field.



The failure of employers to provide fully comprehensive, on-the-job training may also reflect economic considerations. One of the primary incentives for employers to participate in training has been the justifiable lower wage paid to apprentices. As noted earlier, this traditional incentive may be disappearing in Ontario because of the introduction of an apprentice wage that increases through the various stages of training.

It would therefore appear that the heavy emphasis placed on training-on-the-job undermines the scope and quality of an apprentice's training, and may contribute to a period of apprenticeship that is longer than necessary. To bring about improvements in this area of apprenticeship the following recommendations are made:

**RECOMMENDATION 22**

***That provision be made by each Provincial Advisory Committee to review the mix of on-the-job and classroom instruction for each trade, in light of an up-to-date job analysis of the knowledge and skills required by a journeyman.***

**RECOMMENDATION 23**

***That in situations where significant elements of the trade cannot be acquired, either through on-the-job training or in a reasonable period of time, laboratory simulations of the work experience elements be provided as part of the in-school portion of the training program.***

**RECOMMENDATION 24**

***That the use of log books or other record-keeping systems be increased to ensure that an apprentice's exposure to the various elements of a trade are recorded and certified by employers, and that such records be a significant element of the process for determining an apprentice's eligibility for accreditation as a journeyman.***

The legitimate point will be raised that the implementation of these recommendations will mean that apprenticeship training will be more expensive for employers. However, a higher quality apprenticeship program will require more resources, and unless new financial mechanisms are developed, there will be increasingly fewer apprenticeships as

more employers find themselves unable to participate. Later in this chapter, the Task Force will make recommendations on the financing of apprenticeship, and, if they are adopted, the anticipated higher costs to employers will not arise.

**b. Apprenticeship and Technological Change**

The recognition of only the journeyman level of competence is an important characteristic of Ontario's apprenticeship system. With the exception of the motor vehicle repair trade, accreditation in a trade can be achieved only by completing the entire program and graduating as an all-round journeyman. Further, the rigid Ontario system does not facilitate mobility between trades. After qualifying in one trade, an individual who wishes to qualify in another must start all over again; no credits for training in the first trade are granted on entry into the second. However, changes in methods of production do give rise to specialization and new skill hierarchies. Accordingly, we doubt the continuing viability of a training system that recognizes only one level of competence and discourages mobility between trade areas.

As an example, review of technological change in Ontario's mechanical construction industry has predicted widespread acceptance after 1975 of the following developments:\*

- (1) utilization of plastic pipe and fittings;
- (2) pre-assembly in the shop;
- (3) pre-packaging of multiple purpose units;
- (4) industrialization (i.e., the manufactured home, prefabrication and modular co-ordination).

The implications of these innovations for job content and skill levels is substantial. The new materials and the shift toward in-shop pre-assembly and prefabrication will simplify many tasks. On the other hand, the development of pre-packaged units that combine more than one function means that tradesmen will require a broader range of skills. Further, as industrial installations become more complex and instrumentation and tolerance requirements increase, the need for more sophisticated

\* Bruce MacDonald, *Technological Change and Manpower Requirements to 1975 in Ontario's Mechanical Construction Industry* (Research Branch, Ontario Department of Labour, 1971).

skills, and frequently for multi-skills will increase.\* Also, as equipment becomes more sophisticated and multi-purpose, workers in the service and maintenance area will require a broad range of skills that cut across existing trade definitions and related training curricula.

Another result of technological change has been the development of jobs with the same title, although they may be at different skill levels depending upon whether they are in the residential or non-residential sectors of the construction industry.† For example, with the development of the manufactured home and with prefabrication growing in importance, the skills of the carpenter or electrician in the residential sector become far more specialized and less complex than their counterparts in the non-residential sector. This same point was made in a number of briefs submitted to the Task Force.

Specialization has been recognized in the motor vehicle repair trade. Before 1969 the apprenticeship regulations made provision for three types of certificate: Branch A – Motor Mechanic; Branch B – Auto Body Repairs; Branch C – Electrical and Fuel Systems Repairs. Under this system, to be employed in a brake and alignment shop a man needed a Branch A certificate even though his specialty could have been learned in less than the full training period required for the certificate.

In an effort to overcome such problems the existing divisions were broken down and four new certified trades were added: transmission mechanic; truck-trailer repairer; alignment and brakes mechanic; motorcycle mechanic. The period of apprenticeship in these new divisions is less than that required for full mechanic status, but a core of training, common to all divisions, aims at supplying each specialist with basic principles that apply to the whole trade. It is possible to combine certificates in these blocks and eventually attain full motor mechanic status. An advantage resulting from this disaggregation of the trade is the recognition of shop specialization that has evolved as a result of technical change and market forces. In addition, these subdivisions reflect more accurately the on-the-job training actually received by apprentices.

\* A Review of the Keep Pace Program.

† J. Douglas Muir, "Impact of Specialization upon Apprenticeship as a System of Training" (Canada, Department of Manpower and Immigration, and Alberta, Department of Labour, 1971, mimeo.).

The developments in the motor mechanic trade have substantial merit, and the possibility of extending them to other trades deserves consideration. A first step in this direction would be detailed field surveys to determine variation in job content and degree of specialization within the existing apprenticeable trades.

As technological change gives rise to specialization and a hierarchy of skill levels, it becomes very inefficient to train persons to become journeymen who then spend most of their time in semi-skilled jobs. To be allowed to achieve only one level of competence turns many people away from a trade even though they are capable of achieving that level. This can be very costly to society because it leads to an inefficient allocation of scarce labour resources. To improve this situation, the Task Force makes the following recommendation:

#### RECOMMENDATION 25

***That each Provincial Advisory Committee undertake a detailed study of the degree of specialization that has evolved within each trade and, when appropriate, recommend the recognition of different levels of competence within a trade in order to reflect more realistically the realities of Ontario's labour market.***

#### RECOMMENDATION 26

***That persons who wish to move from one trade to another and are prepared to register as apprentices in the second trade, be given credit for training and work experience acquired in their first trade towards the certification requirements in the second trade.***

#### c. Entry Level Qualifications and Training Periods

Qualifications for trainee entrance into the designated trades, and the related periods of training, are reviewed in this section. These are important aspects of a training system. If entry level qualifications are too low, they can have an adverse effect on drop-out and failure rates. On the other hand, if they are unrealistically high, they can become a barrier to entry for many potential apprentices. In addition, the duration of apprentice training must be realistic. If training periods are too short, they can affect adversely the quality of training. If they are too long, and contain artificial time-serving elements, they can undermine the efficiency of the system.



In Table 19 educational requirements and training periods for the trades are listed. These were the basic standards up to October, 1971 when, following the new non-graded secondary school structure, minimum entry requirements became expressed in terms of high school credits. In fact, however, the minimum number of high school credits necessary for entry into the various trades equates very closely with the older grade level requirements. In addition to those who show proof of educational attainment through presentation of academic transcripts, the ITB also permits persons who have obtained minimum entry level requirements outside of the regular school system to become apprentices.

In general, minimum educational requirements for the trades are very low. For some, such as barber, automotive painter, dry cleaner and service station attendant, the related minimums may be more than adequate. However, given the increasing complexity of work in areas of such trades as motor vehicle repair mechanic and electrician, and in the mechanical construction trades, the minimum entry level requirements specified in the trade regulations may be too low. Briefs to the Task Force from some members of the construction industry touched on these anomalies and noted that many employers in the industry would hire only apprentices with a Grade 12 education.

Also shown in Table 19 are the credits, in terms of reduced hours per training period, that apprentices can receive for the possession of Grade 12 standing in either an academic or technology program. The large number of trades in which a candidate is granted no reduction in training period for educational achievement above the minimum entry level is notable. If the necessary skill development can be acquired only on the job, and the skills can be acquired only by spending a set period of time on the job independent of educational background, the practice of granting no credit is legitimate. However, given the large number of trades where no credits are granted, one must speculate that this situation might partly reflect the influence of private parties who desire to maintain a time-serving element in apprenticeship.

When the ITB began to review qualifications for entry into apprenticeship on the basis of credits acquired in the school system, it also introduced a new policy of granting time credits above those shown in Table 19 for persons with more than a Grade 12 education. This was done in part to recognize the growing number of persons who had taken a community college technology program. In a number of briefs submitted to the Task Force concern was expressed about this development because it effectively approves a substitution of advanced institutional training for on-the-job training. In these briefs the point was made that much of the essence of a trade can be effectively acquired only through adequate exposure to actual work situations. The Task Force has some sympathy for this view, and in fact a credit hours system taken to the extreme could seriously damage the on-the-job training element of apprenticeship. Rather than granting credit hours for advanced institutional education and training, it would be more practical to permit persons with this background to qualify for time credits by taking practical tests. These tests would be developed in co-operation with members of the industry and would be administered by the ITB.

To deal with the issues just discussed the following recommendations are made:

#### **RECOMMENDATION 27**

***That each Provincial Advisory Committee review for its trade the educational background required by an apprentice in light of the knowledge and skills he or she will have to acquire to complete the training program successfully.***

#### **RECOMMENDATION 28**

***That each Provincial Advisory Committee review for its trade the present system, or lack of system, for granting reductions in the period of training to persons with educational credits that surpass the minimum entry level requirements.***

#### **RECOMMENDATION 29**

***That to qualify for more than the standard reduction in the training period persons with greater than Grade 12 education be required to take a practical test administered by the Apprenticeship Division of the Employer-centred Training Branch.***

Another problem associated with the use of educational levels as screening devices, whether expressed in terms of grade levels or credits, is that they reveal nothing about aptitude for mechanical work. This point was made to the Task Force a

Table 19

Minimum education requirements for entry to apprenticeship, periods of training and hours per period for each designated trade before October 1, 1971

	Minimum education requirement (grade level)	Standard periods of training and hours	Periods of training and hours per period with Grade 12 Education	
			General* program	Science, technology and trades†
<i>Motor vehicle trades</i>				
Motor vehicle mechanic	10	5 x 1800	5 x 1600	5 x 1200
Transmission mechanic	10	3 x 1800	3 x 1600	3 x 1200
Fuel and electrical systems mechanic	10	3 x 1800	3 x 1600	3 x 1200
Alignment and brakes mechanic	10	3 x 1800	3 x 1600	3 x 1200
Automotive machinist	10	4 x 1800	4 x 1800	4 x 1500
Auto body repairer	8	4 x 1800	4 x 1600	4 x 1400
Automotive painter	8	2 x 1800	2 x 1800	2 x 1800
Farm equipment mechanic	10	5 x 1800	5 x 1400	5 x 1400
Motor cycle mechanic	10	3 x 1800	3 x 1600	3 x 1200
Heavy duty equipment mechanic	10	5 x 1800	5 x 1600	5 x 1200
Truck-trailer repairer	10	3 x 1800	3 x 1600	3 x 1600
Service station attendant	8	2 x 1800	2 x 1600	2 x 1200
<i>Building trades</i>				
Brick and stone mason	8	4 x 1600	4 x 1600	4 x 1600
Cement mason	8	3 x 2000	3 x 2000	3 x 2000
Electrician – construction and maintenance	10	5 x 1800	5 x 1600	5 x 1600
Electrician – domestic and rural	10	4 x 1800	4 x 1600	4 x 1600
Carpenter‡	10	7200	7200	7200
Glazier and metal mechanic	10	4 x 2000	4 x 1800	4 x 1800
Iron worker	10	3 x 2000	3 x 2000	3 x 2000
Lather	10	3 x 1800	3 x 1800	3 x 1800
Painter and decorator	10	4 x 1800	4 x 1800	4 x 1800
Plasterer	8	4 x 1600	4 x 1600	4 x 1600
Plumber	10	5 x 1800	(4 x 1350) (1 x 1800)	(4 x 1350) (1 x 1800)
Steamfitter	10	5 x 1800	(4 x 1350) (1 x 1800)	(4 x 1350) (1 x 1800)
Refrigeration and air conditioning mechanic	10	5 x 1800	5 x 1600	5 x 1500
Sheet metal worker	10	5 x 1800	5 x 1800	5 x 1600
Baker	9	2 x 2000	2 x 2000	2 x 2000
Chef	10	3 x 2000	3 x 2000	3 x 2000
Barber	9	3 x 1500	3 x 1500	3 x 1500
Hairdresser	9	3 x 1500	3 x 1500	3 x 1500
Dry cleaner	10	4 x 900	4 x 900	4 x 900
Radio and television service technician	10	4 x 2000	4 x 1800	4 x 1800
Watch repairer	10	3 x 1800	3 x 1800	3 x 1800

\* Ontario Secondary School Graduation Diploma or Ontario Grade 12 standing in English, mathematics and science.

† With a major in the trade or in subjects relating directly to the trade.

‡ The program for general carpenter is not divided into fixed periods. Reductions in time are based on performance and progress in the training program.

Source: Industrial Training Branch, Ontario Ministry of Colleges and Universities.



number of times, and it was also mentioned as a factor underlying apprentice drop outs, that is, persons who have passed through the academic filters but who drop out of training programs because they have no aptitude for the work involved. This is an important problem and to provide the apprenticeship counsellor with an additional tool useful for assessing and advising potential apprentices the Task Force makes the following recommendation:

#### RECOMMENDATION 30

***That the Apprenticeship Division of the Employer-centred Training Branch undertake to have aptitude tests developed, especially for the motor vehicle repair and the mechanical and electrical construction trades. That the results of such tests be used by counsellors in advising potential apprentices with respect to entering apprenticeship programs.***

#### d. Financing of Apprenticeship

In an apprenticeship program with a heavy emphasis on on-the-job instruction, the employer's role is critical because he is the primary supplier of training. One may suspect, however, that the mechanism relied upon to reimburse the employer-trainer has been weakened seriously in Ontario. This is important, because the willingness of employers to participate in the program and the quality of training they supply is contingent upon the cost-benefit ratios of hiring and training apprentices.

The traditional financing mechanism underlying on-the-job instruction is an arrangement whereby the trainee agrees to work for an employer at a low wage. In return the employer agrees to train him to journeyman level. During the initial stages of training the apprentice's productivity is low in relation to his wage, and the employer's training costs are heavy. As a result the employer suffers a net loss. However, as the apprentice's skills develop and his productivity increases, his value to the employer becomes greater than his wage. The employer is therefore reimbursed for the costs absorbed during the early period of training, and, if the apprenticeship is long enough, the employer may gain a net benefit.

In Ontario, this traditional mechanism is relied upon to encourage employers to hire apprentices

and provide them with adequate on-the-job instruction. However, in an environment where an apprentice's indenture cannot be enforced effectively, and under regulations stipulating that his wage must increase from 40 to 80 per cent of a journeyman's wage during the training period, one must ask whether the traditional mechanism is still viable. The evidence available to the Task Force indicates that the answer is in the negative.

Many employers refuse to enter into a contract of apprenticeship because they believe it is too costly. Others point to the fact that apprentices are free to leave during training and that consequently they consider apprenticeship to be a high risk proposition that is to be avoided. In addition, it was made known to the Task Force that some employers, rather than provide comprehensive on-the-job instruction, tend to keep apprentices engaged in specialized tasks at which they have become very productive. This would again indicate an inadequate financial mechanism.

In short, the available evidence strongly suggests that complete reliance on the traditional wage mechanism to finance on-the-job instruction for apprentices is no longer practical. Further, there is a strong possibility that at present many employers hire apprentices only because of compulsory certification; in other words, in law they are permitted to hire only registered apprentices or journeymen who hold a Certificate of Qualification.

The present system also creates problems for the apprenticeship counsellor who is expected to ensure that employers can provide adequate on-the-job instruction and to monitor the training they provide to ensure that minimum standards are met. The existing arrangements place the counsellor in a very difficult position; to a large extent he is dependent upon the employer's good will and, if he takes the monitoring function too seriously, there is a high risk that the employer will refuse to participate in apprenticeship. In effect, the counsellor has little, if any, leverage to ensure the provision of adequate on-the-job instruction for apprentices.

The Task Force has not had the opportunity to study in detail the costs of apprenticeship borne by the employer in relation to any benefits that may accrue to him. It is on the basis of such a study that an appropriate policy on the financing of on-the-job instruction for apprentices should be developed. Accordingly, the Task Force recommends:

**RECOMMENDATION 31**

***That the Ministry of Colleges and Universities establish a committee to undertake an independent study of both the costs of on-the-job apprentice training borne by employers and the benefits that accrue to employers from employing apprentices. That this committee's findings be used as a basis for determining the nature of appropriate financial support for employers who provide such training for registered apprentices. That the federal Adult Occupational Training Act be amended to provide for the reimbursement of the net costs to employers of the provision of apprenticeship training.***

This area of analysis is complex because it has to determine the net costs, if any, to employers who participate in the Apprenticeship Program. This involves calculation of the actual training costs borne by employers and estimation of the dollar values of apprentices' productivities during each period of training. Only with these calculations can employers' net training costs be determined.

At present there is an anomaly in the federal government's approach to the financing of training-in-industry. The new on-the-job training programs introduced by the Department of Manpower and Immigration provide employers with wage subsidies of up to 75 per cent for training and preparing workers for future employment. While the Task Force does not suggest that comparable subsidy rates are either desirable or necessary for apprenticeship, it would point out that the principle is the same, namely, that employers be reimbursed for their financial outlay in providing training to meet the economy's general manpower requirements.

*e. The Relevance of Apprenticeship to Sectors of the Economy other than Trades*

It was observed earlier that the ITB's Apprenticeship Program is an important vehicle for occupational skill development, mainly in the construction and motor vehicle repair trades. The position of apprenticeship in the construction trades is rooted in history and tradition, but its preservation as the main form of training, in the face of substantial changes in production methods, is attributable largely to the existence of vigorous craft unions with a strong stake in the survival of this method of

occupational training. Its importance in the motor vehicle repair trades also appears to be the result of historical and institutional factors. When Ontario's garage operators sought government support in the 1940s to overcome a shortage of competent mechanics, formal apprenticeship was the only training system available that could provide the necessary elements of classroom and on-the-job instruction. When it was linked to a system of occupational licensing (compulsory certification) for motor vehicle repair mechanics, formal apprenticeship became firmly entrenched as the training method in these trades, and it was effectively insulated against competition from other systems that were to emerge in the following decades.

Whether the Provincial Apprenticeship Program can be expanded to other sectors of the economy depends, of course, on how employers perceive their training needs and on the appropriateness of regulated apprenticeship for satisfying them. The Canadian Manufacturers' Association, at the time of the Simonett Committee on Manpower Training in 1962, did not view apprenticeship as appropriate to the manufacturing sector. The association saw it as a very rigid method of training aimed at producing all-round journeymen. Because of their diverse needs, employers in the manufacturing sector require a flexible training system that is aimed at developing more specialized skills.

The Canadian Manufacturers' Association's brief to the Task Force indicates that its view of Ontario's Apprenticeship Program has not changed. The position taken is "that apprenticeship in its traditional senses is no longer practical." The Association's statement, however, should not be given the interpretation that there is no need in the manufacturing sector of the economy (or other sectors) for a training method similar to formal apprenticeship which involves a combination of classroom and on-the-job instruction. In light of other evidence, it would appear that the Association's position is part of a strong reaction to the rigid and regulatory characteristics of the Apprenticeship Program such as the requirements for fixed training periods, the compulsory and standardized training curricula, the mandatory minimum trainee-journeyman wage ratios, and the specified numerical ratios of apprentices to journeymen.

The Ontario survey of training-in-industry, which was reviewed in Chapter 7, revealed that 12.7 per



cent of the 6,942 responding firms were involved in apprenticeship programs during the 12-month period ending August 31, 1969.\* For survey purposes, apprenticeship was defined as formal training leading to journeyman status which involved an oral or written contract between employer and apprentice. The apprenticeship did not have to be registered with the ITB.

The Task Force received briefs, from both individual employers and employers' associations, which indicated that some form of apprentice training is a useful activity in a number of industrial environments. The brief received from the Rubber Machinery Shops Division of Uniroyal Limited states that this division has conducted its own apprenticeship program for machinists for over fifty years. The joint submission to the Task Force by Algoma Steel Corporation Limited and the Steel Company of Canada Limited recognizes the need for strong linkage between classroom and on-the-job instruction to develop industrial tradesmen and other skilled workers. The Association of Municipal Electrical Utilities in its brief to the Task Force has described its comprehensive and high quality apprenticeship program to train electric power linemen. This program involves both formal classroom instruction and on-the-job training and is tailored to meet the needs of the public utilities industry.

It would therefore appear that apprenticeship is being used actively and independently by many employers in Ontario outside the province's Apprenticeship and Tradesmen's Qualification Act. It does not logically follow, however, that the provincial Apprenticeship Program should be expanded to cover these employers. It would not be in the public interest to recommend that the regulated Apprenticeship Program be imposed upon them.

Many employers see apprenticeship as a useful training method, but they do not wish, and reasonably so, to have the rules of the provincial Apprenticeship Program imposed upon them. It is preferable to permit such employers to seek out those arrangements to meet their training needs which they find most suitable, in light of their

unique needs and circumstances. Numerous options are open to them. These range through meeting their own training needs via the internal development of expertise, participating in TIBI, STIT or Canada Manpower Training-on-the-job Programs and developing their own apprenticeship programs, to entering into a Contract of Apprenticeship under the province's present Apprenticeship and Tradesmen's Qualification Act. In effect, we suggest an approach sufficiently flexible to offer industry the discretion to exercise its own judgment on the best means to meet its manpower training needs.

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\* It should be noted that the construction industry, one of the most important users of apprenticeship, was excluded from this survey.

## CHAPTER 10

### *The licensing of trades in Ontario*

#### 1. The Certification and Accreditation Process

The layman is faced with a mass of complex terminology when he tries to understand the procedures which govern the various types of certification in the trades covered by the Apprenticeship and Tradesmen's Qualification Act of Ontario. After we have attempted to define the forms of certification we shall outline the granting procedures.

a. *The Certificate of Apprenticeship* is issued to a candidate who graduates from a regulated apprenticeship program in the province.\* It certifies that the individual has participated in a training program, that as a result he possesses certain defined skills and knowledges, and that he has successfully completed the program. There is no comprehensive examination required for this certificate; it is granted if the apprentice has served the required time in employment, has passed his school examinations and has reports from employers testifying to the adequacy of his on-the-job experience. However, in those trades that require a Certificate of Qualification, its examination must be passed before a Certificate of Apprenticeship can be granted.

b. *The Certificate of Qualification* is issued to members of various trades and is intended to certify that they possess defined skills and knowledge which they are capable of using in practical work situations. In essence, this certificate is designed to certify that a tradesman has at least the minimum qualifications necessary to practise the skills and knowledges of a defined trade. There are two types of Certificates of Qualification: voluntary and compulsory.

(i) *The Voluntary Certificate of Qualification* applies to trades where a Certification of Qualification is not required by law in order to practise. It is granted by the Industrial Training Branch (ITB) to show that those hiring a tradesman can expect him to possess at least the minimum qualifications required to perform the skills of a defined trade. On March 31, 1973, the following trades were subject to voluntary certification: automotive machinist; automotive painter; brick and stone mason; cement mason; chef; dry cleaner; farm equipment mechanic; general carpenter; glazier and metal mechanic; heavy duty equipment mechanic; lather; millwright (construction); painter and decorator; plasterer;

\* The development and implementation of the apprenticeship program is outlined and analysed in Chapter 9 of the Report.



radio and T.V. service technician; service station attendant.

(ii) *Compulsory Certificate of Qualification (License)* applies to trades where a Certificate of Qualification is legally required in order to practise, as defined by regulations under the Apprenticeship and Tradesmen's Qualification Act of Ontario. It is granted by the ITB, as evidence that a tradesman possesses the skills and knowledges of the trade as it is defined.

This chapter will be mainly devoted to an analysis and evaluation of the practice of requiring a compulsory certification for specified trades in Ontario. The term *trades licensing* will be used for convenience, and because it indicates more precisely the nature of compulsory certification, which is in effect the granting of a license by government to practise an occupation legally. It is against the law for unlicensed persons, who are not registered apprentices, to practise. As of March 31, 1973, the following trades require a Compulsory Certificate of Qualification: air conditioning and refrigeration; alignment and brakes mechanic; auto body repairer; barber; electrician – construction and maintenance; electrician – domestic and rural; fuel and electrical systems mechanic (automotive); hairdresser; motor-cycle mechanic; motor vehicle mechanic; plumber; sheet metal worker; steamfitter; transmission mechanic (automotive); truck-trailer repairer; watch repairer.

c. *Licensing of Tradesmen.* Ideally, to ensure a reasonable degree of uniformity in the acquisition of skill and knowledge and a balanced competence in all aspects of a trade, only journeymen who have successfully completed a regulated apprenticeship program should be granted a trades license. In reality, other workers who have some experience in practising the trade must be accommodated in some way or else government will be in the position of denying them the opportunity to use their skills. There are many workers who have acquired a knowledge of some elements of a trade through work experience without having undertaken a formal apprenticeship. During the initial period, following the introduction of licensing in a trade, they are accommodated by a "grandfather" clause in the legislation which permits them to be licensed by virtue of having worked in the trade for a time

longer than the period of apprenticeship. Immigrant workers must also be provided for if the economy of the province is not to lose skills which it needs. Migrant workers from other provinces, with either Certificates of Apprenticeship or trade experience, must be accommodated. In fact, as will be seen later, the administration of trades licensing enables most workers with minimum claims either through job experience or training to qualify, after a period of time, for certification in the trade. However, this means that many workers with varied experience can hold licences in a particular trade and, in many instances, fall short in terms of skills and knowledge, of the graduates of regulated apprenticeship programs.

Figure 13 charts the four routes that applicants for a Compulsory Certificate of Qualification can follow, depending on their experience and origins.

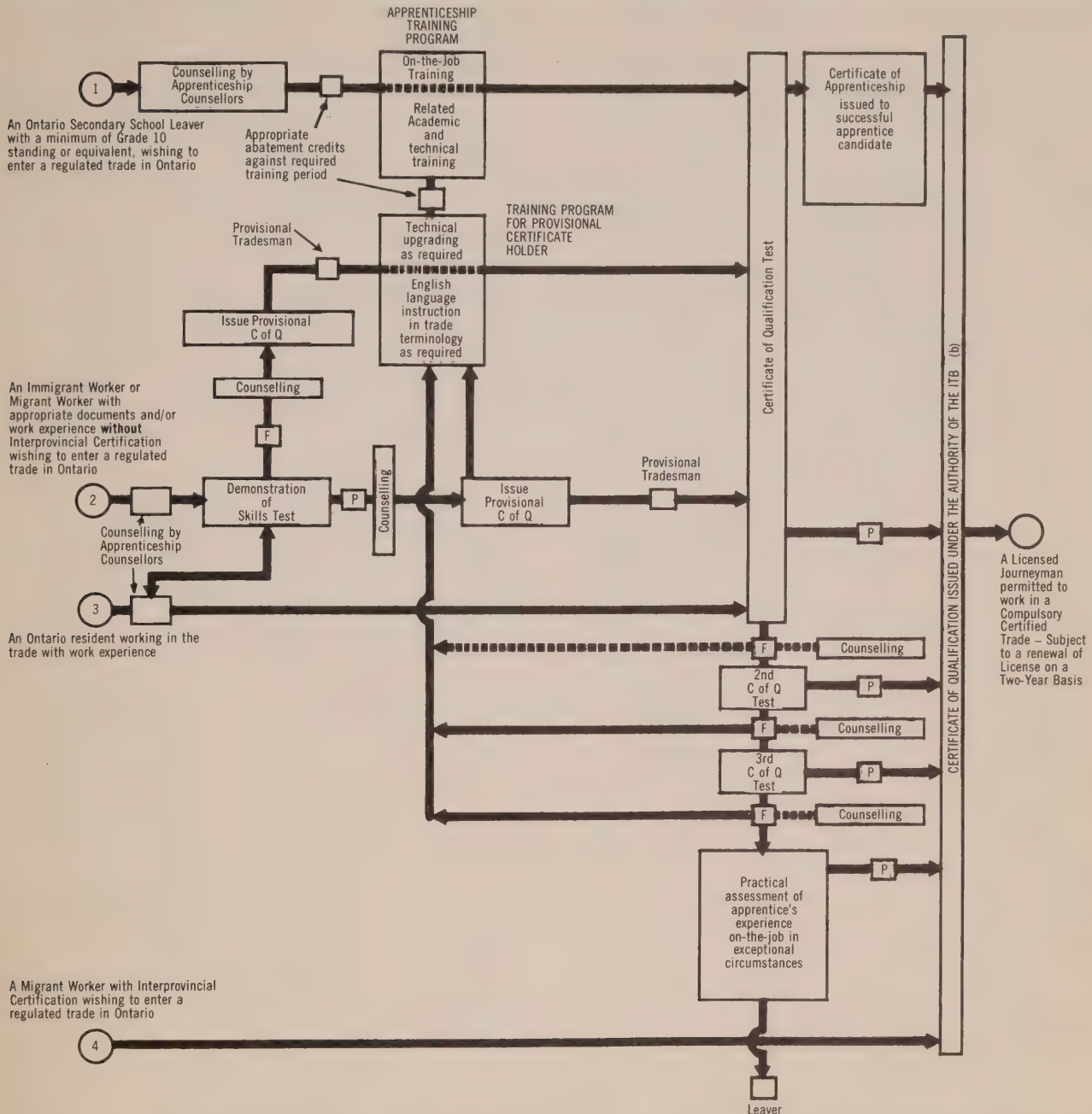
Route 1 is for Ontario school-leavers with Grade 10 or equivalent standing who wish to enter a trade through regulated apprenticeship programs. After counselling they enter the programs, receiving time credits for relevant subjects that they may have taken at the secondary school level. Following the successful completion of apprenticeship, and after passing the Certificate of Qualification Examination, they are issued Certificates of Apprenticeship.

Route 2 is followed by the immigrant or migrant worker who does not possess a Certificate of Qualification with an interprovincial seal in the trade.\* The applicant is counselled and it is decided, taking account of his job experience and training, whether or not he must take a Demonstration of Skills Test. If he fails the test, he may be granted a Provisional Certificate of Qualification to become a provisional tradesman. He must then undergo a training program which includes technical upgrading and instruction in English, if this is required. When he has successfully completed this training program, he can apply for a Certificate of Qualification test. He may also enter an apprenticeship program, receiving credits for his on-the-job experience and related in-school instruction. If the applicant passes the Demonstration of Skills Test or is not required to take it, he is again granted a Provisional Certificate of Qualification. He can then legally work in his trade and is permitted to take a Certificate of Qualification test. Provisional certificates are granted for

\* Interprovincial seals, or "Red-Seal Certificates," are granted by provinces in certain trades which have commonly administered examinations across Canada.

Figure 13

The routes for achieving a Compulsory Certificate of Qualification in the province of Ontario (a)



## NOTES:

- (a) The current system is a highly diverse one in the number of alternative channels open to the candidate seeking a Certificate of Qualification (occupational license). Only the most often used channels are depicted here.
- (b) Those receiving 70% or more on the Certificate of Qualification test also qualify for an Interprovincial Seal - in those trades where interprovincial standards have been established.

Legends: - P - Pass test  
 - F - Fail test  
 - C of Q - Certificate of Qualification

Source: Industrial Training Branch, Ministry of Colleges & Universities, March, 1973.



six months at a time but they may be renewed at the discretion of the ITB. Many provisional tradesmen, unfamiliar with English and with Canadian practices, are allowed to take up to three trade tests. If the third is failed, a practical assessment of the worker's on-the-job trade experience is made by an official of the ITB and if he is found to be adequate he is granted a Certificate of Qualification; if not, he is required to leave his trade if he is not to practise it illegally.

Route 3 is for non-immigrant Ontario residents who have worked in a trade for some years. Such workers are classified in three categories.

(i) If they apply during the two years after the trade is declared licensed (the "grandfather" period), they are granted Certificates of Qualification if they can demonstrate that they have worked in the trade for a period in excess of an apprenticeship. Because there are so many such requests, the ITB handles them by mail on the basis of adequate proof of work experience in the trade.

(ii) Those applying after the expiry of the "grandfather" period, are eligible, if a counsellor believes them to be reasonably qualified, to write the Certificate of Qualification test. They can try it three times, and if they are unsuccessful they are permitted to have their on-the-job experience assessed as for Route 2.

(iii) If the counsellor judges that applicants lack sufficient relevant experience and skills, they are asked to take Demonstration of Skills Tests, given Provisional Certificates, and then they follow the same channels as workers using Route 2.

Route 4 is for migrant workers holding interprovincial Apprenticeship Certificates or Certificates of Qualification in certified trades. A red seal is affixed to Certificates of Apprenticeship and/or Qualification in trades in which a common, interprovincial qualifying examination is administered by each province.\* The holder of an interprovincial Red Seal Certificate is granted Ontario certification on payment of the prescribed fee.

\* A red seal is affixed to the certificate if the candidate receives a mark of 70 per cent on the examination.

Later we shall examine some of the problems connected with the administration of this system of licence-granting, and its impact on the effectiveness with which the objectives of trades licensing are met. The administrative system has changed as problems have arisen and ways of solving them have developed. Our description of the system applies to its administration up to March, 1973.

## 2. The Legislative Background of Trades Licensing

Because licensing is linked to apprenticeship training, we must also outline briefly the development of the apprenticeship program.\*

The first Apprenticeship Act (1928) regulated the existing, informally organized system of apprenticeship training by specifying the conditions apprentices had to satisfy to achieve journeymen status. An apprentice was defined to be a person of at least 16 years of age, and a minor could not be employed for more than three months in a trade designated under the Act unless he or she had entered into a Contract of Apprenticeship. The Act did not apply to adults, but for those under 21 it introduced the first element of compulsory trades regulation by forbidding them to practise a trade unless they were enrolled under contract to an employer in an apprenticeship program. The minimum duration of a Contract of Apprenticeship was set at two years. Five construction trades were designated under the Act: bricklayer, mason, carpenter, painter and decorator, and plasterer. The Lieutenant-Governor in Council was empowered to add to the list.

The original Act was amended several times but it was not until the war-time year of 1944 that the licensing or compulsory certification of specified trades in Ontario was provided for. In introducing the amendment, the Minister of Labour indicated that it would be applied at that time only to motor vehicle mechanics at the request of management and labour representatives of the garage industry.† This industry felt that it was important to devise a means of ensuring the competence of automotive mechanics and that such measures would serve to protect the public from faulty motor vehicle repairs.

\* A full analysis of apprenticeship training is contained in Chapter 9.

† Considering the role that trades licensing has since played in supporting the work jurisdictions of craft unions, it is interesting that it was first introduced in an unorganized trade.

Thus, trades licensing was first introduced as a measure of public safety protection. Workers were to receive Certificates of Qualification that recognized their skills and competence, and would provide information to employers regarding the qualifications of potential employees. The public would know when their vehicles were being repaired by qualified tradesmen. There were other reasons, in addition to public safety protection, which appeared to justify trades licensing, but these could be covered by a system of voluntary trades certification of competence which did not force every worker to have a certificate before he could legally practise his trade.

Under this 1944 amendment to the Apprenticeship Act, the Industry and Labour Board, established by the Department of Labour Act of 1937, was empowered to make regulations requiring all persons, other than registered apprentices, engaged in any designated trade, to hold current Certificates of Qualification, and the employment of those who did not meet this requirement could be prohibited. The amendment provided for a "grandfather" period during which workers could be exempted from the regulations if they satisfied the Provincial Apprenticeship Committee that, at the time the regulation had come into force, they had been engaged in the trade for a period specified by the committee. The duration of the "grandfather" period was set at two years.

The present Apprenticeship and Tradesmen's Qualification Act (1964) consolidated previous amendments, and with some exceptions, maintained the provisions outlined above. This was consistent with certain of the recommendations of the Select Committee on Manpower Training (Simonett Committee)\* which reported in 1963.

In explaining the provisions of the new Bill, the Minister of Labour discussed the considerations which had prompted its introduction, and the retention of the provisions for trades licensing. First, skilled tradesmen were in short supply, and demand was growing and creating a need to expand apprenticeship training. Second, qualified tradesmen and apprentices required some tangible evidence of their skills and training. It was felt that this would give workers their "rightful status" in

the eyes of the public. The "standing" of tradesmen would be improved because they would be able to offer to both employers and members of the public "proof" of their qualifications. Licensing was also expected to protect tradesmen against "unfair" competition.\*

It is interesting that the protection of public health and safety as a major justification for trades licensing was not offered on this occasion.

The justifications for licensing offered by the Minister will be examined later and found to be an inadequate basis for occupational licensing, but legitimate reasons for the voluntary certification of tradesmen's qualifications.

Following the introduction of the Act, compulsory certification was established in a number of trades and voluntary certification was introduced in others.

### **3. The Administration of Trades Licensing**

#### *a. Administration of the Regulations*

Examination of the routes by which tradesmen, who have not completed apprenticeships in Ontario or who possess interprovincial Certificates of Qualification, can secure Certificates of Qualification in licensed trades is revealing. In effect, the procedures have been designed to allow almost any tradesman with experience longer than the duration of apprenticeship to qualify for a licence if he possesses minimal competence as determined by a written and/or oral examination, or ultimately (if he continues to fail) by an assessment of his on-the-job experience. This lenient approach is understandable. Denial of a licence means that a tradesman can no longer pursue his chosen occupation because of a discretionary administrative decision. Thus, while the approach is commendable in human terms, it can undermine the only legitimate purpose of compulsory certification, namely to assure the public that a tradesman has a known capacity to practise effectively every aspect of his trade. In this sense, humanity and public protection are incompatible.

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\* See Ontario, *Legislative Assembly, Debates* (Toronto: January 28, 1964).

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\* Ontario, Report of the Select Committee on Manpower Training, Hon. J. R. Simonett, Chairman (February, 1963). Hereafter entitled the Simonett Report.



Unfortunately, no administrative statistics existed to enable the Task Force to determine how many of those applying for licences through each of the four routes are actually granted them. Certainly the granting of a licence to a non-apprenticeship tradesman is, in part, a reward for persistence in taking examinations, or the result of putting pressures on the administrators of the program. By this we do not imply that improprieties or frauds exist, but only that those who do not give up easily are more likely to surmount the hurdles in their paths. The impression of the Task Force (in the absence of statistics) is that few workers with demonstrated experience in their trades, which is greater than the duration of apprenticeship, are denied licenses if they have sufficient persistence.

Statistics on examination failure rates for “tradesmen” and “apprentices” would at first seem to contradict this impression. For the purpose of these statistics “tradesmen” are defined as candidates who have not served apprenticeships in Ontario. The failure rates are presented in Table 20. It will be observed that, as would be expected, they are always higher for tradesmen than for apprentices, and for tradesmen they are often above 50 per cent. But this does not mean that all journeymen or apprentices who fail are denied licences. They can write the examination up to three times, and finally have their on-the-job experience practically assessed. The frequency of failure, however, does indicate that a great deal of time and energy on the part of ITB officials goes into the counselling of applicants for licenses and into the setting, marking and administration of examinations.

In addition, as discussed in Chapter 9, the apprenticeship counsellors of the ITB are expected to police both employers and tradesmen to ensure that no one lacking a Certificate of Qualification is working in a licensed trade. If uncertified workers are discovered, they are asked to apply through routes 2 or 3 or are ordered to leave the trade. This activity on the part of counsellors conflicts with their primary function of promoting and regulating apprenticeship training and, in fact, inhibits the effective promotion of apprenticeship.\*

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\* See Chapter 9, pp. 136-137.

#### *b. Trade Specialization*

A characteristic of many licensed trades is their tendency to become specialized under the impact of technological change and the differing contexts in which they are practised in various industries and areas of the province.

In order to be licensed, trades must be defined, and a detailed account of the areas of work and the functions to which the license applies must be included in the regulations. This is to ensure that non-licensed workers do not practise in these areas, and to define explicitly the areas in which the licensed worker is entitled to practise. Similarly, trade unions define the areas of work over which they have jurisdiction and in which their journey-men members are entitled to practise.

The Simonett Committee recognized the problem of specialization and in consequence recommended, in trades where it was appropriate, the introduction of certification applying to trade specialties as well as to the whole trade. Other than in the automotive repair trades this recommendation was not implemented, because of craft union jurisdictions which recognize only all-round journeymen as eligible for union membership.\*

How then did the administrators of trades licensing handle the problems of trade specialization and union jurisdiction? Following the first introduction of licensing to the automotive repair trade in 1944, the trade was in fact largely concentrated in the automotive repair and service industry, as was the apprenticeship program. The industry was largely unorganized by unions. There was little supervision and control of motor vehicle repair work in other industries, such as mining and lumbering, so that the apprenticeship training programs in the garage industry were reasonably homogeneous.

In the mid-1960s attention was directed to additional areas such as truck and heavy-duty equipment repairing, thus encouraging the broadening of the scope of the motor vehicle repair trade. Increasing specialization within the automotive repair and service industry underlined the need to subdivide the trade to reflect the increasing specialization of work within it. As a result, in 1969 the trade was broken down into specialties for purposes of apprenticeship training and the granting of Certifi-

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\* See Chapter 9, pp. 141-142 for a discussion of the role of craft unions in maintaining a jurisdictional definition covering the whole work area embraced by a trade.

Table 20

Number of Certificate of Qualification examinations written, and failure rates of tradesmen and apprentices, by trade and fiscal year, Ontario.

Trade and fiscal year	Examinations written			
	Tradesmen		Apprentices	
	Number	Failure rate	Number	Failure rate
<b>Air conditioning and refrigeration</b>				
1966-67	92	16.3	31	22.6
1967-68	144	38.9	27	33.3
1968-69	137	72.2	52	34.6
1969-70	147	60.5	48	47.9
1970-71	109	64.2	78	30.8
1971-72	116	50.0	51	13.7
<b>Electrician</b>				
1966-67	1,827	54.5	308	26.3
1967-68	3,009	53.4	520	22.5
1968-69	2,308	60.7	500	18.6
1969-70	1,927	55.3	534	13.7
1970-71	1,775	51.3	798	9.3
1971-72	1,271	39.5	725	8.3
<b>Plumber</b>				
1966-67	86	93.0	178	44.4
1967-68	779	65.9	330	29.1
1968-69	1,078	56.5	265	11.7
1969-70	804	53.5	192	12.5
1970-71	717	57.5	379	6.1
1971-72	560	55.7	373	4.3
<b>Sheet metal*</b>				
1966-67	-	-	123	60.2
1967-68	86	75.6	266	50.0
1968-69	862	45.0	176	8.5
1969-70	545	47.2	115	3.5
1970-71	352	50.0	263	22.1
1971-72	299	42.8	328	12.5
<b>Steamfitter</b>				
1966-67	-	-	-	-
1967-68	-	-	-	-
1968-69	479	63.0	91	27.5
1969-70	416	65.1	79	26.6
1970-71	367	64.9	160	23.1
1971-72	441	69.4	213	16.9
<b>Alignment and brakes†</b>				
1966-67	-	-	-	-
1967-68	-	-	-	-
1968-69	-	-	-	-
1969-70	16	43.8	0	0.0
1970-71	21	42.9	2	0.0
1971-72	18	33.3	16	31.3
<b>Auto body</b>				
1966-67	-	-	-	-
1967-68	-	-	-	-
1968-69	269	46.1	172	17.4
1969-70	263	47.5	115	13.9
1970-71	306	59.2	171	17.5
1971-72	286	66.8	172	19.2
<b>Fuel and electric</b>				
1966-67	-	-	-	-
1967-68	-	-	-	-
1968-69	37	16.2	9	22.2
1969-70	32	68.8	7	57.1
1970-71	43	69.8	13	15.4
1971-72	45	57.8	9	22.2
<b>Motorcycle†</b>				
1966-67	-	-	-	-
1967-68	-	-	-	-
1968-69	116	6.9	0	0.0
1969-70	45	13.3	0	0.0
1970-71	54	18.5	6	16.7
1971-72	80	7.5	17	0.0
<b>Motor vehicle</b>				
1966-67	2,524	43.4	1,654	12.1
1967-68	2,525	49.3	1,926	18.4
1968-69	2,077	63.0	994	29.4
1969-70	2,135	65.6	1,035	33.8
1970-71	2,170	63.8	1,329	19.8
1971-72	1,807	56.6	1,217	17.2
<b>Transmission†</b>				
1966-67	-	-	-	-
1967-68	-	-	-	-
1968-69	-	-	-	-
1969-70	11	27.3	0	0.0
1970-71	21	76.2	0	0.0
1971-72	26	61.5	8	37.5
<b>Truck-trailer†</b>				
1966-67	-	-	-	-
1967-68	-	-	-	-
1968-69	-	-	-	-
1969-70	4	75.0	0	0.0
1970-71	25	84.0	0	0.0
1971-72	16	62.5	1	100.0
<b>Barber</b>				
1966-67	586	22.5	90	18.9
1967-68	428	22.0	73	13.7
1968-69	140	34.3	58	6.9
1969-70	270	23.0	38	15.8
1970-71	230	63.9	52	32.7
1971-72	224	48.2	68	33.8
<b>Hairdresser</b>				
1966-67	735	44.4	403	13.6
1967-68	882	19.4	343	13.7
1968-69	844	32.0	366	13.9
1969-70	724	26.0	282	7.1
1970-71	725	37.4	387	6.5
1971-72	648	31.6	392	13.0

\* Figures not available in *Annual Reports* are indicated by a dash.

† Before the reorganization of the motive power trades in 1969-70, the indicated trades were part of the motor vehicle repair trade.

Source: Ontario Department of Labour, *Annual Reports*.



cates of Qualification. Workers were thus enabled to be trained systematically in the various trade specialties, and to qualify for certification on the basis of work experience. The number of divisions within the trade was increased from three to eleven, with certification being made compulsory in seven.

Following revisions to the Act in 1964, the extension of licensing to a number of other trades raised a host of problems. It was originally contemplated, in the language of the Act, that licensing would apply to a trade in whatever industrial context it was practised. This meant that certification would apply to the practice of the trade in the construction industry, in manufacturing and in all other industries in which the occupation existed. In reality, the work of plumbers, electricians, or sheet metal workers varies greatly between manufacturing and construction, and even from industry to industry within manufacturing. Manufacturing employers understandably objected strenuously to, and successfully argued against, the application of trades licensing to workers in their industry. A solution was devised by the ITB and criteria were developed to determine whether tradesmen were employed in construction or in "general" industry. The regulations for licensing were not applied to "general" industry, which in effect meant that they were applied only to the construction industry in the case of the building and associated trades.

A further serious problem arose when there were inconsistencies and conflicts between trade definitions for licensing and the definitions which had been established to determine the jurisdictions of craft unions. Trade definitions were originally developed by the ITB in order to develop rational and systematic training programs. However, craft unions also played a strong role in regulating the content and duration of apprenticeship, and in determining the qualifications of tradesmen eligible for union membership and hence for referral to jobs under closed shop contracts and through union hiring halls. In view of the power of the unions, the government regulations defining trades had to conform closely to existing union jurisdictional definitions, and trade specialties were exempted from the regulations.

Finally, workers whose experience was restricted to only a part of a trade, as defined, faced great

difficulty in qualifying for licenses. Only three choices were open: to forbid them to practise the part of the trade in which they were skilled, to certify them for their specialty which would lead to controversy with craft unions, or to duck the issue by exempting their specialty from the regulations. Understandably, the third choice was again adopted as the least of three evils.

The opposite problem arose with workers, particularly those from rural areas, who were performing operations which, according to the trade definitions, belonged to more than one licensed trade. In these cases, it was decided to issue Certificates of Qualification, under the "grandfather" clause, in the trade in which the worker was most qualified.

### *c. The Exercise of Administrative Discretion*

The granting or withholding of a trades license has a serious effect on the freedom of an individual to pursue an occupation of his choice. The denial of a license can have a substantial impact on his income and on the continuity of his employment. A democratic society should therefore do everything possible to ensure that licensing procedures are administered objectively and fairly, and that independent appeal procedures are available to those who are denied licences. It is a sound principle of public policy that justice should not only be done but also seen to be done.

The Task Force has not examined the administration of trades licensing in detail, and therefore is not in a position to evaluate the extent to which administrative procedures are fair and objective. However, an examination of the procedures followed in granting licenses raises questions which it is appropriate to place on record.

It is obvious from an examination of the various routes by which tradesmen can qualify for licenses that a considerable element of administrative discretion is involved at various critical stages in the processes. It could not be otherwise, for training credentials and the relevance and quality of work experience from both many foreign countries and other Canadian provinces must be evaluated.

In Route 2, for example, with respect to immigrant tradesmen, and similarly in Route 3 for Ontario residents with work experience, a counsellor first evaluates the nature and relevance of the training and experience of the applicant. Depending on his judgment, he may refer the applicant either for a

Demonstration of Skills Test or directly for the Certificate of Qualification test. If he fails the former, a significant judgment is then exercised as to the extent and character of further training required by the applicant before he is channelled into the appropriate apprenticeship program which will later permit him to write a Certificate of Qualification test. In this type of administrative process, there is considerable likelihood that the biases and views of individual counsellors will play a part. This is particularly significant when applicants have no opportunity to apply to independent appeal authorities for an assessment of the objectivity and fairness of the administrative decision.

The review in Table 20 of the failure rates of both apprentices and tradesmen indicates surprising variations in rates from year to year, both within and among trades. This is in spite of the fact that one would not expect great variations from year to year in the normal distribution of ability and competence among the large numbers of tradesmen and apprentices who take the examinations. It is possible that there are annual variations in the training programs taken by apprentices and in the characteristics of their job experience, particularly among immigrants. The examinations are of the objective, multiple-choice type so that differences in the evaluations of markers should not affect the results. When one reviews Table 20 it is difficult to explain, however, why the failure rate for apprentices in the sheet metal trade varied from 60.2 per cent in 1966-67 to 3.5 per cent in 1969-70, or why the rate for tradesmen in air conditioning and refrigeration ranged from 16.3 per cent in 1966-67 to 72.2 per cent in 1968-69. We are therefore forced to conclude that many of the failure rate variations are reflections of the degree of difficulty of the examinations from year to year. This is particularly significant in an administrative process in which applicants do not have an opportunity to apply to independent appeal procedures, which provide a source of independent monitoring of the objectivity and fairness of the administrative processes.

The Task Force points out these problems, not as a criticism of the difficult and complex tasks of the ITB, but rather as an indication of the almost inevitable difficulties which are associated with the administration of trades licensing. The exercise of

wide administrative interpretation is necessary because no set of regulations can possibly cover the numerous details of work experience and training in a manner that would constitute a precise and unambiguous entitlement to a trades license, without further restricting seriously the eligibility of those applying for licenses.

The Task Force is not prepared to make recommendations for improving the administration of trades licensing. Rather it recommends that trades licensing be phased out, apart from the motor vehicle repair trades.

#### 4. The Purposes of Trades Licensing

An evaluation of trades licensing can be undertaken only in the light of the objectives or purposes which it is designed to serve. We shall first examine the arguments which have been advanced for licensing in the legislative history of Ontario and in the literature on the subject.\*

##### *a. Increasing the Supply of Training for Qualified Tradesmen*

When the amendments to the 1964 Apprenticeship and Tradesmen's Qualification Act were introduced in the Legislature the Minister of Labour argued that skilled workers were in short supply, that demand was increasing and that compulsory certification would stimulate training to fill the gap. A similar argument had been put forward in the Simonett Report. It is clear that once the application of the "grandfather" clause has ceased, there are only two legitimate ways of meeting the demand for tradesmen, namely through apprenticeship training or through the importation of workers who can qualify for licenses. Thus, for given levels of demand for tradesmen, either the number in training or the number imported must increase, or there must be some combination of the two. Leaving aside importation, the requirement for licensing has a circular impact; it creates a demand for training because training becomes the only legitimate means of securing a license. This begs the question of whether or not apprenticeship is either necessary or desirable for securing an adequate supply of skilled trades-

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\* The reader is referred to two useful articles: Simon Rottenberg, "The Economics of Occupational Licensing," in *Aspects of Labour Economics* (New York: National Bureau of Economic Research, 1962), pp. 3-20, and Thomas G. Moore, "The Purpose of Licensing," *Journal of Law and Economics* (October, 1961), pp. 93-117.



men. Other than importation, it prohibits the alternatives for producing tradesmen such as other forms of training, work experience or a combination of both. A protective wall is thus erected around a particular method of training, inhibiting the processes of adaptation and the pressures which competition creates for more efficient training techniques.

While the Task Force believes that apprenticeship is probably the best method known at present for the training of workers for most of the licensed trades, it also believes that licensing itself prohibits the use of other training options which should be available for acquiring qualifications to work in the skilled trades.

For these reasons, the Task Force concludes that the need for an increased supply of training is not a valid argument on which to base a case for trades licensing.

#### *b. Raising the Standards of Practice in the Trade*

In theory, licensing ensures at least a minimum level of competence among tradesmen by exposing them either to uniform apprenticeship training programs or to defined areas of work experience, together with the requirement that they pass a trade examination. In practice, all these methods of learning a trade are subject to very considerable variation, as we have seen in reviewing the routes by which workers can acquire Certificates of Qualification, and as we shall see in more detail later. Actual standards of practice are raised only to the extent that the higher competence level of tradesmen achieved through licensing can be applied in actual work situations. In theory, licensing requires that a tradesman possess all the skills required in a defined trade area, and so it restricts the specialization of labour. It may therefore, in fact, push the skill standards of tradesmen below the specialized and intensive levels that would have been established in its absence. Thus, the average levels of competence actually present in an occupation may be less than those possible under a system of training and work experience which permits a more efficient specialization of labour. Specialization of training would not require tradesmen to perform many tasks which could be undertaken more efficiently by less skilled workers.

The Task Force, therefore, concludes that trades licensing does not necessarily increase the competence of tradesmen in actual work situations, but may in fact reduce it because it tends to inhibit the specialization of training and skill acquisition.

#### *c. Protection against Fraud*

Because licensing involves the certification of qualifications by the provincial government, many users of tradesmen's services appear to believe that they are somehow protected against losses brought about by dishonest workers. There is nothing in the provisions of apprenticeship training programs or in the administration of trades tests that is designed to ensure that the recipient of a license is, or continues to be, honest in his dealings with either employers or the public. Most tradesmen are employees of business firms. The honest tradesman may sometimes be required by his employer to use shoddy materials or do slipshod work in the interests of the firm's economy. In theory, it is possible that tradesmen who have undergone apprenticeship and who fulfill certain skill and knowledge requirements might be less likely to engage in fraudulent practices, but this possibility would seem to afford the public little protection.

#### *d. Protection against Unfair Competition*

When the amendments to the Apprenticeship and Tradesmen's Qualification Act were introduced in 1964, it was argued that qualified tradesmen would be protected from "unfair" competition by the licensing provisions. This argument is often advanced by those in skilled occupations who wish to protect themselves from price competition with those whom they regard as having inferior qualifications. While the wages and incomes of those who are granted licenses in an occupation may be protected, there are undesirable economic side effects in terms of consumer prices above what is required as adequate compensation for the production of the services involved.

Unless there are adequate provisions for the real protection of the public, the Task Force must come to the conclusion that the public's interests must be paramount in judging the validity of this argument for trades licensing.

#### e. Protection of Public Health and Safety

In introducing the 1944 amendments to the Apprenticeship Act which first provide for the licensing of designated trades, the Minister indicated that, among other reasons, the licensing of motor vehicle repair mechanics would help to protect the public. As already mentioned, the Minister did not use the protection argument in 1964 when the provisions for trades licensing were extended. In the Task Force's view, the protection of public health and safety is the only valid purpose for licensing as far as the public interest is concerned. We have examined all the other reasons for the licensing of apprenticeable trades put forward in both the legislature and in the literature, and have found that they lack validity. However, licensing to protect public health and safety is valid when the work of incompetent practitioners can endanger consumers who cannot always protect themselves adequately.

To assess the need for licensing as a means of protecting public health and safety, it must first be established that the work of incompetent tradesmen will indeed pose a threat. If a threat exists, the following characteristics concerning the practice of the trade should also prevail: high variation in the quality of the service furnished by practitioners; strong impact of this variation (on health and safety); much information necessary in order to evaluate the quality of the service; limited contact between consumer and practitioner. Further, if licensing is to be justified on these grounds, it must constitute an *effective* method of protecting the consumer. Finally, in view of its undesirable economic side effects, licensing must be cheaper and more efficient than alternative methods of reducing the risks to public health and safety arising from the work of incompetent tradesmen.

In a later section of this chapter we shall examine the extent to which the licensed trades in Ontario measure up to these criteria.

#### 5. The Economic Effects of Trades Licensing

If trades licensing should be found to be incapable of serving any valid public purpose, it is important to analyse the extent to which it may impose unnecessary costs on both the consumers of trades-

men's services and on the economy. These costs may assume a variety of forms such as limitations on the degree of labour specialization, higher wage costs than would otherwise occur, and fewer employment opportunities for those seeking to enter the licensed trades.

Economic analysis provides some clues to the impact of licensing on wages and employment in an occupation. If entrance to the occupation is solely through an apprenticeship training program, then for the individual the cost of entry consists of his training costs: tuition, fees, books and so on; most of these costs are absorbed by both levels of government. In the case of the trades in Ontario, a more significant cost to the entrant is what economists call the *alternative-opportunity cost*, which he must bear during the period of his apprenticeship. It consists of the difference between the wages he could earn in the highest-paying occupation open to him and what he is earning as an apprentice. When government absorbs the costs of training, entry costs are transferred from the individual to society.

It is not possible to estimate the training costs borne by the individual or society in many licensed trades. Neither is it possible to calculate opportunity costs without knowing the best alternative employments which particular apprentices might enter. An example for the electrical trade, however, suggests some of the magnitudes involved when the wage rate of an apprentice is compared with that of a construction labourer. Here the magnitude of the opportunity costs is probably understated because electrical apprentices are high-school graduates who could presumably earn higher wages than labourers. Collective agreements for the Toronto area (as of December 1, 1972) indicate that the lowest hourly wage paid to construction labourers is \$5.40 per hour. In the electrical trade, apprentice members of Local 353 of the International Brotherhood of Electrical Workers earn \$3.23 in their first period of training, \$4.04 in the second, and \$4.84 in the third. Only in the fourth period does the wage rate (\$5.65) exceed the minimum paid to labourers. The differences in these wage rates, over the period of the apprenticeship, constitute an estimate of the opportunity costs sustained by apprentices in the electrical trades.



We have already seen that licensing will reduce the number of specialized tradesmen and will therefore lead to inefficiencies in the allocation of labour among functions. This occurs because the regulations governing licensing define the jobs which journeymen are to perform, and workers with less skill (but more specialization) are not allowed to do them. As a result, while the level of a journeyman's competence may be high, in the sense of commanding a wide range of skill and knowledge, the skills used in his actual work may be considerably less because of the time he spends performing simpler tasks which could easily be done by a worker with less training. Alternatively, in cases where specialized training does occur, the Certificate of Qualification implies that the worker's range of skills is broader than it is in fact. In both cases, the employer (and indirectly the consumer) must pay the journeyman a wage determined on the basis of the top level of skills implied by his license, regardless of the level of skill actually required.

If all journeymen have the same wage rate, (e.g., those belonging to a particular trade union), the employer (and the consumer) must pay economic "rents" to those who joined the trade when entry requirements were lower than at present.\* The wage rates of tradesmen who obtained their licenses during the "grandfather" period, or as a result of on-the-job experience, are equal to those of journeymen who qualified after apprenticeship training, yet the costs of entry are higher for the latter because of their alternative opportunity costs during apprenticeship. Thus wage differentials in a licensed trade do not reflect differences in entry costs or in the real qualifications of workers. As a result, employers and consumers are required to pay the same wage rates to both poorly- and highly-qualified tradesmen.

By imposing artificial barriers to trade entry, licensing tends to facilitate increased wage rates by keeping workers in shorter supply than would otherwise be the case. Wage rates tend to increase either in response to shortages of labour due to higher entry costs following licensing or because of the greater

bargaining power of workers in the trade.\* Thus licensing generates an institutional situation in which consumers pay more for the services of licensed tradesmen than would be the case in its absence.

Licensing reduces employment in a trade because it lowers the number of entrants and keeps wages artificially high. It therefore denies employment in the trade to workers qualified to perform the simpler tasks but unable to meet the entry requirements. Such workers must find alternative employment at wage rates lower than those prevailing in a licensed trade.

In summary, licensing imposes costs on the economy. It reduces efficiency by restricting specialization and the efficient allocation of labour. It raises wages above the levels that would prevail in its absence, and allows some workers to earn economic rents. It reduces employment levels and opportunities for workers qualified to perform only limited elements of the trade.

## **6. Certification Problems faced by Immigrant Tradesmen**

Before 1964, skilled workers entering Ontario from other countries could become employed in most trade areas and prove themselves through their performance on the job. With the introduction of compulsory certification in a number of trades after 1964, many foreign skilled workers found a substantial barrier, in the form of Ontario's Certificate of Qualification Examination, that they had to cross before they could become legally employed in their chosen trades. The failure rate on this examination has been very high for immigrant tradesmen. This is a serious problem, especially since only one level of competence is recognized in compulsory certification trades other than automotive repair. Failure to obtain the certificate means that the immigrant tradesman is barred from working in any area of the trade he formerly practised.

Because the trades license has such a direct impact on employment opportunities for the immigrant tradesman, the ITB has had to develop a number of devices to provide him with an adequate opportunity to qualify. The immigrant tradesman usually presents documents to the ITB to show proof of his

\* An economic rent is defined as any income return which persists over a long period, in excess of the return which the factor of production, labour in this case, could earn over its best alternative employment.

\* This tendency toward increasing wages is particularly strong if the demand for the product is relatively insensitive to price, which is probably the case in the construction industry.

training, and often notarized statements on work experience are also submitted. In most cases the evidence has to be accepted at face value because of the high volume of applicants and the limited available information on training standards and work content in various countries of origin.

After this superficial screening, the initial practice was to allow an applicant to work in his trade on a provisional certificate for a period of six months. This was to allow the immigrant tradesman to learn Ontario trade practices and codes. Upon expiry of the certificate, the tradesman was expected to write the Certificate of Qualification Examination. The failure rate, however, was very high, and it was attributed to an inadequate knowledge of the English language. The practice of permitting the immigrant to use an interpreter during the exam was therefore adopted. The interpreter was not an employee of the ITB, but rather someone recommended by the candidate and approved by the ITB.

These devices to deal with the problems of immigrant tradesmen were not very satisfactory for several reasons. The construction craft unions did not like the use of provisional certificates, especially when they could be renewed up to three times and, in general, were policed very inadequately. In addition, the practice of permitting candidates to write the Certificate of Qualification Examination with the help of interpreters did not prove satisfactory because it was difficult to know whether success was attributable to the candidate's or the interpreter's knowledge of the trade.

To overcome these difficulties, the ITB has evolved a new procedure for screening immigrant applicants for provisional certificates. Practical tests have been developed for the mechanical and electrical trades, and a six-month, provisional certificate is issued to those who pass. During this time, immigrants are expected to familiarize themselves with Ontario trade practices and codes and to overcome any language or technical inadequacies by taking special training programs. When the provisional certificate expires, the candidate must write a Certificate of Qualification examination in the English language, without the aid of an interpreter. For those candidates who have a great deal of difficulty with the examination because of inadequate facility in English, a practical trade test may also be administered.

From this brief review it becomes evident that the introduction of compulsory certification has given rise to a number of costs to both immigrant tradesmen and society in general. These costs arise not only from the need for special tests and training programs that compulsory certification has created, but also from the poor utilization of the immigrant tradesmen's skills when compulsory certification bars them from working in single areas of their chosen trades. Whether or not these costs are justifiable depends on the legitimacy of occupational licensing in a trade.

While compulsory certification has created many problems for immigrant tradesmen, their difficulties have also been compounded by poor communications between the two levels of government. The federal Department of Manpower and Immigration screens potential immigrants and, with reference to their education and occupational training, advises them on potential employment opportunities in Ontario. The real screening of credentials, however, is undertaken by provincial agencies that set the test immigrant workers must pass for purposes of accreditation.

Unfortunately for the immigrant tradesman there appears to be too little communication between the two governments on minimum standards that must be met in Ontario for accreditation in the various trade areas. Accordingly, immigration officers working in the various countries of origin have inadequate knowledge of working conditions and the standards immigrant tradesmen will have to meet in Ontario. The result is that the immigrants frequently become aware of the standards only after they arrive in Ontario, and many of them discover that the required levels of education and training are higher than in their countries of origin. To improve this situation, the Task Force makes the following recommendation:

#### RECOMMENDATION 32

***That improved channels of communication be established between provincial and federal officials to provide overseas immigration officers with adequate information on trade standards in Ontario. Further, that potential immigrant tradesmen be given the opportunity to write***



**trade tests in their own languages in their home countries, and that copies of credentials and résumés of work experience be sent to the Employer-centred Training Branch. On the basis of the examination results and review of credentials and work experience, that potential immigrant tradesmen be informed about their chances of qualifying for accreditation in their chosen trades before immigration visas are issued.**

## 7. The Implementation of Licensing

Some of the problems associated with the implementation of trades licensing in Ontario will now be reviewed as part of our evaluation of its effectiveness.

For trades licensing to serve the legitimate purpose of protecting public health and safety, it must meet several criteria. The first and most important criterion is that tradesmen who are licensed must have defined minimum levels of skill and knowledge applicable to all aspects of the trade as defined in the licensing regulations. Second, there must be a method of reviewing the capabilities of licensed tradesmen to ensure that they maintain their capacities to perform as competent workers in the trade. Third, there must be an effective method of identifying and eliminating tradesmen who do not measure up to the requirements of the license.

Table 21 shows the number of licenses issued, and the method of issuing them, for each of the licensed trades in fiscal years 1965-66 to 1971-72. "Renewals" of the certificate in a licensed trade are required every two years and can be obtained without examination on payment of a \$10.00 fee. It can be seen that in all trades in which licensing was introduced in the mid-1960s, the number of workers receiving certificates is high until 1968-69, when it falls sharply. The impact of the "grandfather" clause is reflected in the large numbers obtaining the certificate without examination in the years 1965-66 to 1967-68.\* The motor vehicle trades, barber, and hairdresser do not follow the pattern of peaking because their licensing was introduced before 1965-66. The large influx of journeymen during the "grandfather" period can be noted, for example, in the electrical trade, where 17,567 tradesmen obtained a license without examination between 1965-66 and 1969-70, while only 5,792 secured it by examination.

\* These are certificates issued for the first time. In the following years, they are counted as "renewals."

As we have seen earlier, both apprentices and tradesmen who have acquired sufficient work experience are eligible to write the Certificate of Qualification examination. Table 22 presents data on the percentage distribution of examinations for tradesmen and apprentices. It will be seen that in most trades for most years more tradesmen than apprentices were examined. For example, in the motor vehicle repair trade, in which compulsory certification was introduced in 1944, the proportion of examinations written by tradesmen ranges between 56.7 per cent and 69.0 per cent during the years 1965-66 and 1969-70.

This, in effect, means that even in trades which have been licensed for many years, work experience rather than apprenticeship is the main method by which tradesmen from outside the province become qualified. It should be noted, however, that many tradesmen who migrate or immigrate to Ontario have undertaken apprenticeship programs elsewhere.

In summary, most of the certificates issued during these six years were issued under the "grandfather" clause. Of those issued after examination, most were obtained by tradesmen qualified to write the examination by virtue of work experience. Only a minority of licensed tradesmen was granted certificates following completion of apprenticeship, but the apprentice-trained tradesman, who presumably has all-round qualifications acquired by regulated work experience and in-school training, is the norm by which the public judges a tradesman's qualifications.

The following sections will examine selected characteristics of some of the groups acquiring trades licenses, in terms of the public protection criteria for licensing that were defined earlier.

### a. Graduates of Apprenticeship

It is generally assumed that tradesmen who have undergone apprenticeship programs and received licenses as a result have measurably defined and uniform levels of all-round skills. However, this is not necessarily the case because 90 per cent of an apprenticeship consists of on-the-job work experi-

Table 21

*Certificates of Qualification issued,  
by trade, year, and method of qualification,  
Ontario, 1965-66 to 1971-72*

Trade and fiscal year	Certificates of Qualification issued*				
	Total	Initial issue			Renewals
		Total initial issue	After examination	Without examination	
Air conditioning & refrigeration					
1965-66	647	647	93	554	-
1966-67	1,007	437	80	357	570
1967-68	1,312	347	140	207	965
1968-69	1,358	113	77	36	1,245
1969-70	1,428	100	93	7	1,328
1970-71	1,568	108	-	-	1,460
1971-72	1,893	77	74	3	1,816
Electrician					
1965-66	8,027	5,267	250	5,017	2,760
1966-67	14,793	9,060	812	8,248	5,733
1967-68	23,957	5,759	1,890	3,869	18,198
1968-69	23,607	1,747	1,429	318	21,860
1969-70	22,102	1,527	1,411	116	20,575
1970-71	22,552	1,563	-	-	20,989
1971-72	12,527	1,556	1,520	36	10,971
Plumber					
1965-66	-	-	-	-	-
1966-67	1,166	1,032	126	906	134
1967-68	8,549	5,611	528	5,083	2,938
1968-69	9,127	1,458	805	653	7,669
1969-70	9,042	759	614	145	8,283
1970-71	9,295	662	-	-	8,633
1971-72	5,424	702	665	37	4,722
Sheet metal worker					
1965-66	-	-	-	-	-
1966-67	1,354	1,219	44	1,175	135
1967-68	5,113	3,169	189	2,980	1,944
1968-69	5,608	946	623	323	4,662
1969-70	5,235	535	476	59	4,700
1970-71	5,512	403	-	-	5,109
1971-72	3,406	463	439	24	2,943
Steamfitter					
1965-66	-	-	-	-	-
1966-67	270	235	9	226	35
1967-68	6,225	4,320	225	4,095	1,905
1968-69	5,227	511	260	251	4,716
1969-70	5,027	281	235	46	4,746
1970-71	5,158	281	-	-	4,874
1971-72	2,865	298	282	16	2,567
Motor vehicle mechanic†					
1965-66	33,956	2,030	2,030	-	31,926
1966-67	36,210	2,232	2,232	-	33,978
1967-68	39,607	2,807	2,806	1	36,800
1968-69	39,379	2,019	1,982	37	37,360
1969-70	40,427	2,239	1,932	307	38,188
1970-71	42,302	2,134	-	-	40,168
1971-72	26,127	2,739	2,343	396	23,388
Watch repairer					
1965-66	540	540	-	540	-
1966-67	1,390	565	23	542	825
1967-68	1,370	66	19	47	1,304
1968-69	1,411	45	25	20	1,366
1969-70	1,319	8	-	8	1,311
1970-71	1,361	18	-	-	1,343
1971-72	1,595	33	24	9	1,562
Hairdresser					
1965-66	21,143	2,203	2,200	3	18,940
1966-67	20,905	2,392	2,391	1	18,513
1967-68	20,493	1,177	1,177	-	19,316
1968-69	24,431	1,230	1,220	10	23,201
1969-70	22,538	1,613	1,610	3	20,925
1970-71	22,344	1,458	-	-	20,886
1971-72	25,896	1,475	1,472	3	24,421
Barber					
1965-66	8,135	762	636	126	7,373
1966-67	7,938	727	726	1	7,211
1967-68	7,676	555	554	1	7,121
1968-69	9,751	480	474	6	9,271
1969-70	8,559	328	322	6	8,231
1970-71	8,264	261	-	-	7,943
1971-72	8,604	234	231	3	8,310

\* Some information is not available for the earlier years, and also for 1970-71 because of the changeover from manual to computer systems.

† Includes all licensed motor vehicle repair trades.

Source: Industrial Training Branch, Ontario Ministry of Colleges and Universities.



**Table 22**

*Percentage distribution of examinations held for tradesmen and apprentices, by trade and year, Ontario.*

Trade and fiscal year	Distribution of Examinations*						
	Total	Tradesmen	Apprentices				
<b>Air conditioning &amp; refrigeration</b>				<b>Motor vehicle mechanic†</b>			
1965-66	100.0	78.1	21.9	1965-66	100.0	65.9	34.1
1966-67	100.0	74.8	25.2	1966-67	100.0	60.4	39.6
1967-68	100.0	34.7	65.3	1967-68	100.0	56.7	43.3
1968-69	100.0	72.5	27.5	1968-69	100.0	68.2	31.8
1969-70	100.0	75.4	24.6	1969-70	100.0	69.0	31.0
1970-71	100.0	58.3	41.7	1970-71	100.0	63.8	36.2
1971-72	100.0	69.5	30.5	1971-72	100.0	61.9	38.1
<b>Electrician</b>				<b>Watch repairer</b>			
1965-66	100.0	55.6	44.4	1965-66	-	-	-
1966-67	100.0	85.6	14.4	1966-67	100.0	100.0	0.0
1967-68	100.0	85.3	14.7	1967-68	100.0	100.0	0.0
1968-69	100.0	82.2	17.8	1968-69	100.0	94.5	5.5
1969-70	100.0	78.3	21.7	1969-70	-	-	-
1970-71	100.0	69.0	31.0	1970-71	-	-	-
1971-72	100.0	63.7	36.3	1971-72	100.0	79.2	20.8
<b>Plumber</b>				<b>Hairdresser</b>			<i>Apprentices Students</i>
1965-66	-	-	-	1965-66	100.0	29.2	7.5 63.3
1966-67	100.0	32.6	67.4	1966-67	100.0	26.7	14.6 58.7
1967-68	100.0	70.2	29.8	1967-68	100.0	35.8	13.9 50.3
1968-69	100.0	80.3	19.7	1968-69	100.0	34.4	14.9 50.7
1969-70	100.0	80.7	19.3	1969-70	100.0	34.2	13.3 52.5
1970-71	100.0	65.4	34.6	1970-71	100.0	30.7	16.4 52.9
1971-72	100.0	60.0	40.0	1971-72	100.0	29.9	18.1 52.0
<b>Sheet metal worker</b>				<b>Barber</b>			
1965-66	-	-	-	1965-66	100.0	68.4	9.2 22.4
1966-67	100.0	0.0	100.0	1966-67	100.0	70.7	10.9 18.4
1967-68	100.0	24.4	75.6	1967-68	100.0	67.7	11.6 20.7
1968-69	100.0	83.0	17.0	1968-69	100.0	53.6	22.2 24.2
1969-70	100.0	82.6	17.4	1969-70	100.0	65.1	9.2 25.7
1970-71	100.0	57.2	42.8	1970-71	100.0	63.7	14.4 21.9
1971-72	100.0	47.7	52.3	1971-72	100.0	63.6	19.3 17.1
<b>Steamfitter</b>							
1965-66	-	-	-				
1966-67	-	-	-				
1967-68	-	-	-				
1968-69	100.0	84.0	16.0				
1969-70	100.0	84.0	16.0				
1970-71	100.0	69.6	30.4				
1971-72	100.0	67.4	32.6				

\* Some information is not available for the earlier years, and also for 1970-71 because of the changeover from manual to computer systems.

† Includes all licensed motor vehicle repair trades.

Source: Industrial Training Branch, Ontario Ministry of Colleges and Universities.

ence. In the building and automotive repair trades the extent of tradesmen's exposure to all elements of a trade is generally very uneven, because of the swings of employment and the tendency of employers, for economic reasons, to concentrate the work of apprentices on specialized activities.\* It cannot even be assumed that the classroom elements of an apprenticeship program are uniform among apprentices. While the content of classroom work is governed by provincial regulations, in fact it varies considerably depending on the community college to which the apprentice is assigned. Thus the graduates of apprenticeship programs vary widely in their skills and knowledge and in their capacities to perform all of the defined elements of a licensed trade.

#### *b. The "Grandfather" Clause*

When licensing is introduced to a trade, the Act provides that all workers who can claim experience in excess of the period of an apprenticeship are granted licenses. In practice, because of the large numbers involved, the ITB has often handled applications under this clause through the mail, and has therefore been in a position to make only cursory reviews of the relevance and intensity of the work experience of those to whom licenses are granted. As a result, there is an "extreme" degree of variability in the qualifications and competences of tradesmen admitted in this way. This means that employers and consumers cannot take the qualifications of those admitted to the trade for granted, but must rather examine the specific experience and competence of each tradesman. Although the "grandfather" clause applies for only two years after the introduction of compulsory certification, most of those who have been in the trade for a number of years will have been admitted in this way, and they will not disappear completely for many years. Certificates obtained through the "grandfather" clause provide literally no information on workers' training or ability to perform adequately in all or some parts of their trades.

#### *c. Certificates Obtained by Examination without Apprenticeship*

Certificates obtained by examination without apprenticeship indicate that the holders have worked in some parts of their trades but have not completed or served in regulated Ontario apprenticeship programs. As we have seen in reviewing

the various routes for certification, the job experience backgrounds of this group of tradesmen vary enormously in their relevance to trade practice in Ontario. Many are immigrants from a variety of countries, others have migrated to Ontario from other provinces and some have acquired trade experience in Ontario without an apprenticeship. Frequently the immigrant tradesman uses an interpreter when taking the examination, and there is some suspicion that it may be the interpreter rather than the tradesman who has passed.\* The applicant is allowed to take up to three examinations, and, in recent years if he has failed all three, he has sometimes been allowed to qualify for a license through a practical assessment of the relevance and quality of his on-the-job experience. As we have indicated earlier, it is the policy of the ITB to help as many workers as possible to qualify for certificates since the economic consequences are severe if they are denied licenses. Such commendable administrative flexibility can only weaken the objective of trades licensing, which is to ensure a known minimum level of competence in the actual practice of the trades.

The Simonett Committee was presumably aware of some of these difficulties in handling the varied qualifications of those who would apply for licenses. As one way of surmounting them, the committee recommended that compulsory certification not be implemented unless five years' notice was given. During this period, employees who had not completed apprenticeship programs would be allowed to work in their trades while improving their proficiency to attain the required journeyman status.† Further, a system of graded competence was recommended for certification, partly because the committee anticipated that many workers would not be able to attain a single standard.‡ The Simonett Committee recommended compulsory certification only on the grounds that it would ensure that only those workers with proven ability would be allowed to practise a trade. When trades licensing was introduced these recommendations were not implemented.§

\* Wendy Paniak, *An Assessment of Special English Language Course for Immigrant Tradesmen* (Toronto: Research Branch, Ontario Department of Labour, May, 1969).

† Simonett Report, pp. 37-49.

‡ The major reason for a graded system of certification was that, due to the impact of skill dilution from technological change, it was economically wasteful, and unfair to those able to master only some elements of a trade, to require all to become fully-trained all-round journeymen.

§ Apart from in the motor vehicle repair trade, which in 1969 was divided into 11 trades, 7 of which were subject to compulsory certification.

\* For a fuller discussion of this point see Chapter 9, pp. 145-146.



#### *d. The Maintenance and Policing of Licensing*

In situations of technical change, or where tradesmen may not be using their skills regularly, it is desirable that they be re-examined periodically to ensure that their levels of competence are maintained. This would be a major task, given the number of licensed tradesmen in the province, which is presumably one of the reasons why it has not been undertaken. Licenses are renewed without examination, or even evidence of work in the trade, by payment of a fee every two years. License renewal has no function in relation to the maintenance of trade qualifications and is presumably continued only as a revenue-raising device. This probably has the undersirable side effect of leading the public to believe that tradesmen's qualifications are attested to as being up-to-date and adequate by the government of the province when such is not the case. For example, in Ontario garages, auto mechanics' Certificates of Qualification are commonly displayed with official seals for current years. This projects an image of up-to-date competence which is in fact based on nothing more than the payment of a \$10.00 fee.

The Task Force has not been in a position to evaluate the extent to which uncertified tradesmen are practising in the licensed trades in Ontario. Obviously, if one could secure this information, one would be in a position to ensure that illegal practice did not occur. The policing function is a difficult aspect of the duties of apprenticeship counsellors, and it conflicts with their primary responsibility to promote apprenticeship among employers. In the course of policing they do come across unlicensed workers, and they advise them and their employers that they must apply for licenses or else leave the trade. Other violations are brought to the attention of the ITB by individuals or union representatives. Unions police the organized trades because unlicensed workers are not eligible for union membership or referral to employment under closed shop contracts.

#### **8. Evaluation of Licensing as a Means of Protecting Public Health and Safety**

We have reviewed the various purposes of trades licensing, and have concluded that the only legitimate one is protection of public health and safety in circumstances where the incompetent practice of the trade would place it in jeopardy.

#### *a. Can Licensing Protect the Public?*

Our analysis of the implementation of trades licensing in Ontario has indicated that it cannot be assumed that tradesmen whose experience consists of only exposure to some elements of a trade, which is the sole requirement for those licensed under the "grandfather" clause, have even a minimum level of competence in all elements of the trade. In this case, licensing constitutes no significant protection from public health and safety threats. It can be assumed that tradesmen and apprentices who have passed Certificate of Qualification examinations know these elements of their trade on which they have been tested, but not necessarily that they can apply their knowledge in a work context. However, such tradesmen have been exposed to several elements of the complete trade through job experience of varying degrees of relevance. In fact, there is no assurance that any particular tradesman can be adequately competent at all those elements of his trade which may be required of him in a work situation. Thus, there can not be a firm assurance that the public is protected from dangers to health and safety.

Further, there is no assurance that skills and knowledge are kept up-to-date, because periodic re-examination of tradesmen does not take place. In addition, the extent to which unlicensed tradesmen are in fact working in the province is unknown, but this is undoubtedly occurring to some extent.

The Task Force, after a careful consideration of the way in which trades licensing is implemented in Ontario, has concluded that it is a completely unreliable instrument for the protection of public health and safety. Fortunately, in other than the automotive repair trades, there are alternative systems of work inspection which do constitute protection mechanisms.

#### *b. The Protection of Public Health and Safety in the Licensed Trades*

The Task Force has concluded that public health and safety are not adequately protected by Ontario's trades licensing system. In addition, the system generates economic side effects that are undesirable in the public interest. However, we have also concluded that a trades licensing system which did assure an effective degree of public protection would have too high a social and economic cost, relative to the resulting benefits. In addition, other options for public protection are available, and are

in fact being implemented through work, product, and health inspections.

The Task Force has not been in a position to evaluate the degree of the threat that each trade poses to public health and safety, and is therefore not in a position to evaluate the adequacy of existing inspection systems. There are three groups of licensed trades: building, automotive repair, and others, which includes barber, hairdresser and watch repairer. The building trades are in general subject to provincial or municipal work inspection systems. The automotive repair trades have no public inspection systems, and the members of the third group either pose little or no threat to public health and safety, or are required to undergo municipal health inspections. It is therefore clear why the recommendations of the Task Force concerning the continuation of trades licensing differentiate between motor vehicle repair and the other trades.

A brief resumé of work inspection systems in Metropolitan Toronto indicates the nature of typical municipal and provincial inspection systems which apply to the work of many of the licensed construction trades.

In the electrical trade, contractors must have an employee who holds a Master's license. This license is issued to tradesmen who have passed examinations covering the regulations which govern the planning and installation of electrical systems and equipment. The Hydro Electric Power Commission of Ontario issues permits for electrical work and inspects it on completion.

In general, similar requirements apply to the work of plumbers. A Master's license is required if the work involves drainage (a possible threat to health) and plans must be submitted to and approved by the city. Plumbing work requires a permit, and inspections are carried out after completion. Similarly, plans for heating systems must be approved by the city, unless they have been prepared by engineers or consultants. Again, work is inspected on completion.

While the Task Force is not in a position to determine how extensive and thorough is work inspection

by city authorities, it would appear that, in areas which might affect public health and safety, governmental authorities have taken steps to protect the public.

It is to be noted, however, that there is no regular public inspection of the work of motor vehicle repair tradesmen, or of motor vehicles, with the exception of used vehicles up for sale. Public safety is, in part, dependent on the work of such tradesmen and it is therefore important to help ensure minimum standards of competence through trades licensing, until adequate, regular public inspection systems for automobiles are developed in the province. It should be noted, however, that the work of automotive repairmen is only one element, and probably a minor one, that must be considered when ensuring that motor vehicles are in safe working condition.

## **9. Conclusions and Recommendations**

An examination of the purposes of trades licensing in Ontario has revealed that protection of public health and safety is the only legitimate purpose. A review of the methods by which tradesmen are granted licenses, through apprenticeship and the acquisition of trade-related job experience, has led us to the conclusion that licensing does not really guarantee minimum levels of competent workmanship which adequately protect the public against risks to health and safety in those trades in which such risks exist.

In actuality, it is the systems of work inspection by municipal and provincial authorities in the construction and related trades that protect the public's health and safety. Other trades such as barber, hairdresser and watch-maker do not cause a significant public protection problem, and the first two are subject to public health inspection. This leaves the automotive repair trades, in which no alternative work inspection system exists, and for which, therefore, trades licensing probably provides at least some measure of safety protection. However, it should be clear that because of the weaknesses in implementation of the licensing system, such protection is inadequate and is probably not as effective as would be a system of regular motor vehicle safety inspections. It was in the automotive trades, in 1944, that licensing was first introduced. This was partly in order to protect the public, and until an adequate form of motor vehicle inspection is introduced the Task Force feels that it is in this area alone that trades licensing has some continuing validity.



The implementation of trades licensing has been beset by difficult administrative problems, inherent in the process of defining trades in a dynamic context, which have led to a multiplicity of procedures for determining whether or not workers possess skills sufficient to warrant licensing. The administration of licensing by the ITB has been characterized by a humanitarian approach, which has further weakened the meaning of the license in terms of public protection. The Task Force has come to the conclusion that the benefit to the public resulting from licensing is so small, perhaps even negative, in relation to the administrative costs, that its continuation, except in the motor vehicle repair trades, is not justified.

For the general public, the most serious aspect of trades licensing is its undesirable economic side effects. These include the raising of wages, and artificially increasing the consumer costs of services provided by tradesmen beyond the levels which would prevail in the absence of licensing. Licensing inhibits the efficient specialization and allocation of labour, which also raises costs. Because it increases the costs of trade entry, some competent workers who could perform the less-skilled tasks within a trade are denied entry and must seek employment elsewhere. Because wages and costs are higher, employment in the trades is lower than it would be in the absence of licensing, and consumers unable to bear the higher costs are denied tradesmen's services.

It would be misleading, however, to claim that the abolition of licensing would in time lead to beneficial economic results in terms of wages, costs and employment. Most of the effects which have been attributed to licensing flow also from the policies of trade unions, particularly in the building trades. They define trade jurisdictions for their members, and have entrance requirements and competence tests to meet their obligations to employers under closed shop contracts. They restrict entrance to apprenticeship programs through apprentice-journeyman ratios and artificially long training periods. With respect to craft unions, trades licensing merely reinforces those measures which the unions themselves have developed to protect and improve the economic position of their members. Trades licensing, however, extends a stamp of public approbation to these policies, which can not in actuality be defended as being in the public interest. The Task Force does not condemn such policies as part of the fabric of private collective bargaining, but

it does condemn them as policies to be supported by publicly sanctioned and administered trades licensing.

In light of all of these considerations, the Task Force recommends:

#### RECOMMENDATION 33

***a. That the general powers for the Compulsory Certification of trades be removed from the Apprenticeship and Tradesmen's Qualification Act, except for a section continuing its applicability in the motor vehicle repair trades, until such time as an adequate motor vehicle inspection system is developed.***

***b. That the Voluntary Certification of Qualification be applied to and promoted in those trades that were formerly subject to compulsory certification, with the exception of the motor vehicle repair trades now subject to compulsory certification. That Voluntary Certificates of Qualification continue to be available to tradesmen whose experience in the trade is longer than the minimum period of an apprenticeship and who have passed Certificate of Qualification tests. That Voluntary Certificates of Qualification be awarded to the graduates of Ontario apprenticeship programs who possess Certificates of Apprenticeship, and to red-seal certificate-holders from other provinces. That there still be a significant requirement to determine and attest to the qualifications of immigrant tradesmen and workers who have acquired journeyman qualifications through on-the-job experience.***

The Task Force feels that the significant advantages of the certification of tradesmen's qualifications can be retained through the implementation and vigorous promotion of a system of voluntary certification of qualifications acquired either through training and on-the-job experience, or a combination of both. This would enable craft unions to use the certificates as a condition for journeyman level membership in the union. It would enable employers to judge the qualification of tradesmen applying for employment, and would secure status for the qualified members of a trade. The voluntary Certificate of Qualification could be used by municipal licensing authorities and agencies responsible for work inspection. In Chapter 12 the Task Force recommends that the techniques for training and work experience evaluating, used in the granting of Certificates of Qualification, be strengthened and improved to make the credentials of tradesmen more meaningful.

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## CHAPTER 11

### *The modular approach to training*

#### 1. Introduction

The Task Force has given an important place to investigations of the modular approach to training, and to the experience of the Industrial Training Branch (ITB) with this approach.

The Terms of Reference of the Task Force called attention to the need for more flexible and efficient approaches to training and modular training has been suggested as one such approach. It has already generated substantial enthusiasm, especially among employers and employees who have participated in it, which has led to high hopes for the success of its broader application. In view of these expectations, and the extensive development work undertaken by the ITB, we found it desirable to examine “modular training” as intensively as time permitted.

We have assumed that the term “modular training” identifies a set of training principles, or an organized approach to training, and not a training program *per se*. This assumption is basic to the content of this chapter. If modular training is regarded as a basic approach to training, then we must define it, and evaluate its validity and the feasibility of applying it more generally. On the other hand, if it is thought of first and foremost as a training program, like Training in Business and Industry, Short-term In-industry Training or Apprenticeship, which were discussed earlier in the Report, we must analyse the relative roles and functions of the various agencies involved in it, its resource requirements, its results, and the efficiency of the training activities undertaken within it.

In keeping with our assumption concerning modular training this chapter will provide an analysis of the important properties of the modular approach, and assess its validity as a means of resolving the industrial and manpower training problems of Ontario. First, we will outline briefly the evolution of the modular approach to training. Next, we will state the principles involved. Then we will provide a brief assessment of the appropriateness and effectiveness of the approach, and finally, we will make three recommendations which arise out of the analysis.

This chapter draws on the findings of a recent study undertaken jointly for the Task Force and the ITB.\*

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\* G. L. Oliver, “An Evaluation of Ontario’s Modular System for Government Supported Industrial Training; Component No. 1: An Evaluation of the Concept” (Research Branch, Ontario Ministry of Labour, 1972, unpublished).



It also benefits from insights gathered at a number of meetings with ITB staff and clients who were actively involved in training projects using the modular approach.

The application of the modular approach to training is relatively new for the ITB, and so ideas concerning it and how it can best be applied are still emerging. Our analysis does not pretend to reflect all the latest theories, but rather deals with the way in which the approach has developed in the various pilot projects in operation at present. We recognize that the ITB is currently evaluating its cumulative experience with the modular approach, and modifying its training arrangements, method and procedures in light of the results of these assessments.

## 2. The Evolution of Modular Training in Ontario

In the 1950s and early 1960s changing labour market conditions together with public opinion caused the nature of the industrial and manpower training problems facing Ontario to be altered greatly. During the late fifties public pressure was placed on government to support training-in-industry in addition to the traditional regulated apprenticeship. It was felt that apprenticeship did not adequately meet industry's needs, particularly in manufacturing, and that it was not appropriate for retraining, upgrading, and skill maintenance programs. Systems of industrial training less rigid than those typically available under apprenticeship legislation were required. Concern was focused on the way in which industrial training had been organized around specific occupations rather than in relation to actual functions of workers on the job. It was argued that workers often became locked into specific occupations and were unable, because of the specialization of their training, to adapt to differences in skill requirements resulting from technological change.

These arguments led to demands for government to find better methods of co-ordinating classroom and on-the-job instruction and training content. Such demands pointed up the need for better ways of analysing occupations into their individual skill components and training topics, and for organizing these topics into individual courses of study in terms of specific behavioural or performance objectives. Finally, there was a growing emphasis on career development, and on methods and techniques which would make possible and encourage the "continuing education" and training of adult workers.

The context was appropriate, with respect to both labour market conditions and public opinion, for an expansion of government activity in industrial and manpower training, and especially for an increase of emphasis on training-in-industry. Thus, the concept of a modular approach to training-in-industry was born.

The issues were first brought into sharp focus in 1963, through the Report of the Select Committee on Manpower Training (Simonett Report).<sup>\*</sup> In part, they were identified in the brief of the Canadian Manufacturers Association to this committee,<sup>†</sup> in terms of the desirability of a "block" or "modular" approach to industrial training. The association felt that this would resolve many of the problems of its members, and would provide, at least for manufacturing, a training system more appropriate to its needs.

Two developments followed the Simonett Report: the tabling of the Blueprint for the Labour Department by the Ministry of Labour in January, 1965,<sup>‡</sup> and publication of Industrial Training: Report of the General Advisory Committee in 1968.<sup>§</sup> The Blueprint gave official recognition to many of the problems discussed in the Simonett Report and introduced a new organization, the Industrial Training Branch (ITB), which was charged with solving them. The Report of the General Advisory Committee, among other things, recommended that the Government of Ontario undertake the research and development necessary to test the viability of the block or modular approach to training with special reference to the manufacturing industry. The ITB picked up this challenge, and developed a pilot project to discover its advantages and test its viability.<sup>\*\*</sup>

\* Ontario, Report of the Select Committee on Manpower Training. Hon. J. R. Simonett, Chairman (February, 1963).

† Canadian Manufacturers Association, Brief No. 33 to the Select Committee on Manpower Training (October, 1962).

‡ Blueprint for the Labour Department, statement by the Honourable H. L. Rowntree, Minister of Labour (January, 1965).

§ Report of the General Advisory Committee on Industrial Training, Dr. C. Ross Ford, Chairman (Ontario Department of Labour, 1968).

\*\* For an official statement on the expectations for the modular training approach at the time of its introduction see R. M. Warren, "A New Concept in Industrial Training," An address by the Executive Director - Manpower Services, Ontario Department of Labour, to the Canadian Vocational Association (May 28, 1968).

For more recent descriptions of this approach on the part of the ITB see: W. F. Davy, "The Block or Modular System of Training and Accreditation." An address by the Director of the Industrial Training Branch, Ontario Department of Labour, to the Instrument Society of America, (Montreal: April 29, 1970).

By the spring of 1973, approximately 20 pilot projects involving over 600 trainees had been undertaken by the ITB. While most projects have been in the area of manufacturing, the principles of modular training have also been applied to the carpentry trade, in which they have become an integral part of the apprenticeship program.

### 3. General Characteristics of the Modular Approach to Training

Approaches to training have developed in a number of countries in the last decade which have variously been referred to as "modular," "blocked," "staged," and so on. These have been responses to training problems most often described as "flexibility" problems, and they appear to have in common the objective of reducing rigidity and inertia in training, and thus increasing individual training opportunities.

An examination of the various approaches suggests that they have a number of common properties, including the following:\*

- (1) Relatively precise analytical methods are used to identify topics and organize into courses, in order to help ensure the relevance of the course to the occupation or job for which the training is being undertaken.
- (2) Courses or "modules"<sup>†</sup> tend to be defined outside rigid occupational or industrial areas, as commonly occurs in planning courses for industrial training in the traditional apprenticeship trades.
- (3) Courses tend to be shorter, involving relatively fewer topics than in other approaches to training.
- (4) Individual courses are conceived as elements within a much larger pattern of courses for the continuing career development of trainees.

\* For example, these elements will be noted, with varying degrees of emphasis, in Germany's system of training by stages, Sweden's approach to staged training, and in the U.K.'s and Ontario's approach to modular training. While certain of them may not be found in all of these systems, they do tend to characterize the group as a whole.

<sup>†</sup> The term "module" is employed by the ITB to refer to a collection of closely-related "tasks."

Each course, while in itself relatively short, must be conceived as an integral part of an overall package or framework for occupational development. The skills and knowledges learned provide the bridges between courses most likely to follow one another in the career patterns of workers within a given occupation or cluster of occupations. By the use of this approach to the organization of instructional programs, the courses provided by the training system not only meet the immediate skill requirements of the labour market, but also meet certain of the continuing career needs of the trainee.

- (5) Emphasis is given to planning links between courses to facilitate a transfer from one course to another with minimal waste of trainee time and energy, which encourages recognition of the importance of course integration and co-ordination, and the use of remedial courses and special pre-courses to ensure that individual students are adequately prepared for a given module of instruction. Diagnostic testing procedures are used to determine the admissibility and the exact placement within the system of prospective trainees.
- (6) The courses tend to be organized around a core of skills and knowledges, common to several occupations, to which more specific knowledges and skills are added later. Since the content of the core is broadly applicable to a number of occupational and job situations, it provides general vocational preparation required for job mobility in a changing labour market.
- (7) The system includes modules of instruction, including on-the-job training in addition to classroom and laboratory training. These are integrated into a single program of instruction, although, in general, emphasis is placed on the practical components.
- (8) In general, the approach favours flexible class scheduling, staged admissions, and the multiple location of instruction modules in order to cater to the great variety of needs of the employers and employees involved.

Indeed, the properties and advantages attributed to a modular approach to training often appear to be so substantial that it emerges as an ideal model for all training programs – irrespective of their particular goals and content.



#### 4. Some Distinguishing Characteristics of Ontario's Modular Approach

In addition to the properties characterizing all modular, blocked, and staged approaches to training, the system developed by the ITB has certain additional distinguishing characteristics. These are derived from the way in which the ITB uses the principles of modular design and co-ordination to determine the number of topics in a course, to organize courses into individual programs of study,\* and to make courses available to its clients.

In terms of training, this generalized set of principles states in effect, that the design of a given program of studies is simpler and more precise if:

- a. the trainer has at his disposal a catalogue of readily available courses, each of which provides a single skill or simple set of skills within the program of studies being designed;
- b. each entry in this catalogue corresponds to a course outline available on short order basis from some supplier;
- c. the catalogue has a supplement containing instructions on combining these various short courses to produce different kinds of training programs;
- d. each course comes from the supplier with an instruction guide which provides details for its initiation and testing as part of a program of study.

In the process of testing the appropriateness of this generalized set of principles for individualized training, the ITB has developed an inventory of over 500 blocks, training modules, or short courses, each of which comes with a course outline or guide. These modules are duly catalogued and made available to clients, through the field officers of the ITB, on an off-the-shelf basis. In the event that a particular set of skills and knowledge topics required by an employer has not been developed and included in the catalogue, it is generated from the modules on a

short-order custom planning basis, and recorded in the catalogue for the benefit of future clients.\*

What characteristics result from the use of this set of general principles that tend to distinguish the ITB's approach to modular training from other approaches?

First, it would appear that these principles emphasize the desirability of relatively small modules. The lower size limit is determined by what is judged to be a meaningful unit of skill and knowledge. The upper limit is determined, among other things, by the demands of the training market. Clearly, the smaller the number of topics in the module, the greater the number of individual training programs it is likely to fit, and therefore the greater the market demand for it, all things being equal. Thus, for example, a module intended to teach only the operation of the oxy-acetylene torch could be employed in a number of programs. If, however, the same module was extended to include instruction on the use of the oxy-acetylene torch in specific job situations, its market potential would be greatly restricted.

A second distinguishing characteristic is the Ontario modular system's aim to meet newly developing training requirements from stock. In effect, the ITB offers a curriculum supply and implementation service, rather than a general technical and resource service. Clearly, the expansion of this activity on a comprehensive province-wide basis would have important policy and resource implications for the Ontario government. This implication is dealt with later in further detail.

#### 5. An Assessment of Ontario's Modular Approach to Training

The Task Force found no systematic evaluations of the pilot projects carried out by the ITB, either in terms of the success of their graduates, or of the processes of curriculum and class organization employed. We have, however, noted the preliminary

\* An "occupational profile" can be custom designed to a client's requirements, assembling in one "course" those modules that match the task inventory of the occupation in question.

\* This description is a somewhat idealized view of the current approach. Since relatively few projects have been involved to date, the scope of subjects and the number of modules produced is small relative to that which might be expected if the approach were to be broadly applied. In addition, the catalogue of courses or modules at present available from the ITB is not publicly available.

assessments made by employers\* and others of their experience with modular training, and have witnessed a number of testimonials to the effectiveness of the ITB's work in this field.

In the absence of systematic findings on which to base our evaluation, we must rely on impressionistic evidence of results to date, and restrict ourselves to an analysis of the implications of the approach if it were to become widely adopted throughout the province.

Many of the submissions which we received from both industry and the colleges were warm in their praise of the modular concept. They were also enthusiastic about the advantages which they anticipated would derive from its full-scale implementation in Ontario industry. Expressions of praise were not unanimous, however. Several of the craft unions, particularly in the mechanical and electrical trades, voiced criticisms of the application of the approach to apprenticeship training.

One typical point of view was that an undesirable side-effect of any system which trains by stages is that it tends to place "partially trained workers" in the labour market. In the construction industry, which is characterized by wide fluctuations in labour demand, workers must be able to offer employers a variety of skills. This fact is reinforced by craft union jurisdiction which requires members to be "all-round" tradesmen. Because the modular training system does not necessarily provide these multiple skills, it is regarded by many craft unions as inappropriate in comparison with regulated apprenticeship.

Another criticism of the modular approach to training voiced by Ontario craft unions is that it tends to break up unified trades and trade jurisdictions, by encouraging the development of workers with skills in a number of different traditional trades.

There are certain aspects of this new training service being developed by the ITB which are of concern to the Task Force: those related to the undesirable side effects of the approach, those related to its respon-

siveness to employers' expressed needs, and those related to the centralized way in which it is being applied.\*

#### *a. The Side Effects of the Approach*

Unfortunately there are certain undesirable side effects which could follow from the adoption of the modular approach to training on a widespread basis throughout the province, particularly if it is implemented on a centralized basis. Our comments can only be speculative for experience with the approach to date has been limited.

First, and most fundamental, are undesirable side effects in the form of rigidities and high costs of development and maintenance. Such effects tend to result from any highly systematized approach to action. The more systematic the approach, in the absence of special precautions, the more severe are the side effects to be expected.

In the case of a systematized approach to training, which makes instruction units available on an off-the-shelf basis, these rigidities take the form of relatively fixed courses or modules. The assumption that a given course or module and its related course materials can meet the training needs of more than one employer is basic to the modular approach. Unless a substantial market exists for the modules, the costs of developing them, keeping them up-dated, and ensuring their effective use by employers through testing – accreditation, cataloguing and dissemination would be prohibitive. On the other hand, if a widespread market does exist and the modules are used extensively, the high initial development and maintenance costs can be absorbed through low unit costs. Our judgment is that the market is probably not large enough to justify the high initial development costs.†

\* The discussion to follow deals only briefly with these concerns. They are outlined in much greater depth in Oliver, "Ontario's Modular System."

† The limited extent to which employers spontaneously develop formal training programs for their employees in Ontario is documented in Chapter 4.

\* J. K. Hogan, "Modular Approach to Craft Training." Paper presented at a session on Development of Human Resources in the Seventies, 37th mid-year meeting of the American Petroleum Institute's Division of Refining (Shell Canada Ltd., Sarnia, Ontario: May 9, 1972).



The problem of rigidity arises because the inventory of modules is, of course, created before the modules have been used extensively, and so the combination of modules into training programs will not necessarily meet the precise needs of specific employers. Thus, despite the best intentions of the supplier, an off-the-shelf approach to curriculum development has a tendency to mask real training needs.

This is not to say that modular design and co-ordination of training, particularly in its early stages, is not powerful in the development of courses to fit individual needs. However, it is not perfect. It is unlikely, for example, that a single inventory of courses, no matter how extensive and well planned, could be able to meet all training needs. The situation is analogous to that of a home-builder attempting to satisfy individual needs and tastes from the stock of components available from local building suppliers. In both instances, in the absence of a perfect inventory to meet all demands, the real danger is that requests for materials will be met from existing stocks, without due attention to provision of the custom service necessary to ensure that materials have the best possible fit with the customer's needs.

It is appropriate to recall that the modular approach was first suggested to the Select Committee on Manpower Training by the Canadian Manufacturers Association as a way to overcome the rigidity and inertia of regulated apprenticeship, and thus provide for manufacturing a viable form of government-supported training-in-industry. However, if the approach is applied on a province-wide basis, it may tend to replace the restrictions of the apprenticeship system with others, even though a broader set of courses and arrangements is provided.

Added to this basic problem of inflexibility is the problem of development costs being very high unless they can be spread over a large market. They must be carefully weighed against the costs of less formalized approaches, and even against the costs of inaction. The public costs of developing, stocking, cataloguing, maintaining and marketing a fully developed set of training modules to meet client needs on a province-wide basis would be extremely high, and it must be asked whether there are other less expensive yet equally effective approaches to resolving the problems of "flexibility" in training.

The Task Force's recommendations with respect to modular training are designed to minimize development costs while simultaneously retaining the benefits of a central inventory of modules available for use in specific training contexts.

#### *b. The Relevance of Modular Training to Employers' Needs*

The benefits which the modular system is likely to yield must be weighed against undesirable side effects, in the form of certain training rigidities and the probable costs of development. If we assume that the system is powerful, then the expected pay-off from its use is largely determined by its capacity to meet the training problems facing employers and workers. It is therefore necessary to determine what kinds of support employers require from government, in order to train their employees in a publicly responsible way.

In the course of workshop sessions, the Task Force asked employers and unions what they required of government in order to train their own labour forces effectively. The response was that the training of personnel in specific job skills, through training-in-industry, was primarily the responsibility of industry rather than government. This view was rationalized on the ground that it was industry, and not the public domain, which received the direct benefits of such training. The only exceptions were the training of the chronically unemployed and other disadvantaged groups. Employers and unions felt that government did have a responsibility to train such persons within industry, when it could be shown that this was an effective method of providing them with marketable skills. Employers and unions were unanimous in the view that they themselves were in the best position to select training content, and to provide curricula for industry-based training involving specific job skills.\*

Industry stressed that government's role in specific job preparation should be supplementary and co-ordinating. Government should make available to industry, on demand, services to help ensure that training-in-industry can take place in the quality and quantity required.

Specifically, industry defined government's role in training-in-industry as being restricted to:

\* In the implementation of modular training, employers are asked to provide the task inventory for the modules and to approve content and performance standards.

i setting public policy and developing programs to aid and to co-ordinate the efforts of employers and unions in training their own work forces;

ii promoting training-in-industry as an effective means of learning occupational skills;

iii providing occupational guidance and placement services;

iv providing funds for employers, and training allowances for employees, when such support is clearly in the public interest;

v providing technical aid for industry in training methods and techniques, or in organization, curriculum development, and program evaluation;

vi providing industry with an information service, such a service to include a manpower information component, and an inventory of existing agencies and programs related to training-in-industry;

vii providing a system for the accreditation of graduates of training-in-industry programs;

viii providing standards for training-in-industry, in instances where uniformity in skill and knowledge attainment is in the public interest;

ix making colleges, plants, facilities, and staff available to employers and unions on a reasonable cost basis, to the extent that these are required to supplement those available within industry.

In light of industry's perceptions of the role of government in training-in-industry, it seems unlikely that a full-blown government-initiated and controlled system, based on a modular or any other approach to training, will meet industry's needs as effectively as the provision of technical support services and, in specific instances, standard-setting services.

In view of the impressions left with the Task Force by employers and unions, the fact is that government's role in the field of specific skill training for industry is not that of curriculum developer or implementer of training programs. This is not to suggest that government's technical resources should not be used to provide industry with support

for curriculum development in the form of modules, or to provide other means of support as described above. The kinds of technical support that we believe to be required will be explained more fully in Chapter 12.

### *c. The Centralized Administration of Modular Training*

The centralized way in which modular training is at present conceived and implemented also gives cause for concern.

In principle, a basic set of practices relating to the particularization and specialization of the training to be provided will help to ensure the relevance of the training. Training must be centred around particular groups of individuals and their special needs. In the case of industrial training, the recognition of this principle emphasizes the importance of developing training arrangements on the basis of individual occupation, industry and/or location, because training requirements tend to be significantly different in different occupational, industrial, and geographic areas.

It would seem, therefore, that in areas where modular training is appropriate, its relevance is likely to be improved if CAATs, unions, employee groups, employers, and employer associations are encouraged to apply the principles of modular training, and to operate their own training systems with government providing the necessary resources and co-ordinating services.

We believe, for example, that individual employers and unions should be encouraged to develop curricula and make training arrangements using the modular approach, and that in this way their specific needs will be met and public costs kept within acceptable limits. These advantages are likely to exist because of the more limited industrial, occupational, and geographical scope of the training systems which will develop.

In this type of decentralized context, the role of the ITB would become that of a developer of methods and pilot projects, and a supplier of handbooks and related materials to be used by training staff in industry. The ITB would also provide an inventory and exchange service in making available information on existing courses or modules.

It seems unlikely that the full power of the modular approach to training can be achieved, at an accepta-



ble cost, through the use of a highly centralized structure such as that which has been employed by the ITB in the development and testing stages of the approach. This should not be taken as a criticism of the ITB's present policies, for the need to develop and test new ideas under the controlled conditions of a centralized administrative arrangement certainly exists. We are concerned, however, that the administrative arrangements employed to develop and test the concept are not implemented in its widespread practice.

Because there are in existence local employers and CAATs prepared to train in the public interest, we believe that the ITB should turn over to them the responsibility for curriculum and program development employing the modular approach, and concentrate instead on the resource development, information, and co-ordination activities suggested earlier. The fact that there is now available, in the form of the CAATs, a system of semi-autonomous public agencies potentially able to take on this work, has implications worth examining.

## 6. Summary and Recommendations

The critical issues which arise out of this review of the theory and practice of the development of the modular approach to training in this province are not those of quality and effectiveness. We believe that the experience to date has been of immense benefit in demonstrating that the principles of modular design and co-ordination can be applied to training with effective results. Rather, we see the central issues as being those related to the secondary effects of the approach; the lack of fit which might develop in the long-run between the modules available and employers' training needs, and the centralized way in which the approach has been administered in its developmental stage.

In the first instance, we are principally concerned about the possible addition of unnecessary rigidity and inertia to a government-supported training system, and about the incurring of what might be unnecessary public costs. In the second instance, we fear that, in general, it may not be appropriate to offer employers the full range of training resources which this type of sophisticated and costly curriculum planning and development service makes available. Finally, we are concerned lest there be developed a centralized system of modular-type training which may be incapable of adequately meeting individual training needs as they arise in

the various industrial, occupational, and geographic areas of the province.

The Task Force recognizes that, in the absence of detailed factual data, these conclusions may reflect the biases of the researchers to some degree. It also recognizes that experience recorded with the modular approach to date is inadequate as a basis for judging its impact if it becomes widely implemented. We are, however, prepared to make the following recommendations related to the future use of the modular approach to training-in-industry.

### RECOMMENDATION 34

***That the Employer-centred Training Branch promote the use of the modular approach to training by employers, union, and CAATs, with whom various elements of the responsibility for training-in-industry lie.***

Recommendation 34 is made in the knowledge that there are now a number of delivery agencies, principally in the CAATs, capable of producing courses and materials in the range, quality and quantity required to satisfy the market. These agencies have staff, retained at the public expense, technically qualified to develop programs that will meet the industrial and manpower training needs of their regions. Other such agencies located in the private sector are employers and employer associations, unions and private training firms.

### RECOMMENDATION 35

***That the Training Methods Development Service provide for the supply of information on modular methods to the CAATs, employers, unions and other agencies which may wish to implement modular training systems.***

Recommendation 35 is part of a more general recommendation for the development of a curriculum planning and analysis service, which is made in Chapter 12.\*

### RECOMMENDATION 36

***That the Ministry of Colleges and Universities provide a registration and information service to inventory and to make available information on the various training modules available within the province.***

Recommendation 36 is also part of a recommendation given in Chapter 12.†

\* See Recommendation 40.

† See Recommendation 48.

## CHAPTER 12

### *Improving the relevance and quality of training*

#### 1. Training and the Needs of the Labour Market

The most important criterion for judging the effectiveness of an industrial training system is its capacity to meet the labour market needs of employers and the career development needs of individuals. In order to carry out a definitive test of this criterion the Task Force would have had to undertake surveys of those leaving and graduating from the training programs in Ontario to evaluate their subsequent labour market experiences. Such a survey would have helped to determine whether or not the training system had produced an over-supply of graduates in some occupations and an under-supply in others. It would have discovered whether or not graduates had become employed in the occupational areas in which they were trained.

If investments in training are to be recaptured by the individual and by society, earnings from employment following training should be higher than before training by an amount at least greater than the average increases in earnings over the evaluation period. While it cannot be assumed that all differentials in earnings result from training, one can presume that some portion of the increase is due to training and that therefore the investment in training is at least partially or wholly being repaid to society, depending on the extent of the increase in earnings compared to the public resources contributed to training.

The Department of Manpower and Immigration has constructed a cost-benefit model of the Adult Occupational Training Program in order to attempt to get some answers to these questions. In general, given all the limitations of this approach, the answers have been positive.\* That is, that public investments have more than repaid themselves in the contribution of the training to productivity and economic growth.† However, a cost-benefit evaluation of training programs more meaningful than that undertaken by Manpower and Immigration would require the development of a control group of individuals who did not undertake training, to compare with those who had trained.

\* A report by the Hon. Otto E. Lang, Minister of Manpower and Immigration on the Canada Manpower Training Program, "Results of Training, January to December, 1970." Mimeo. (Ottawa: Undated).

† For a fuller analysis of the uses of cost-benefit analysis, see William R. Dymond, "The Role of Benefit/Cost Analysis in Formulating Manpower Policy." In G. C. Somers and W. D. Wood, eds., *Cost-benefit Analysis of Manpower Policies* (Kingston: Industrial Relations Centre, Queen's University, 1969), pp. 42-56.



The Task Force has not been in a position to conduct surveys or utilize cost-benefit models. Thus our observations on the question of the adequacy of training programs in meeting the needs of the labour market, and on the economic contributions of training, are impressionistic. Resources should be devoted to surveys and evaluations of the outcomes of training to help ensure that in the future a much more effective connection between training programs and the needs of the economy, as well as maintaining the relevance of the programs to job requirements, will be possible. We shall be making recommendations on these matters later in this chapter.

Participants in the workshops conducted by the Task Force noted consistently that the provision of adequate and high quality labour market information was one of the important functions of government in the training field. The inadequacies of current services in this area were noted. The importance of precise and timely information to employers and training institutions was regarded as an essential element in making sound decisions on the provision of relevant courses and training programs.

We shall first review the major industrial training programs (apart from apprenticeship, which is examined in Chapter 9) in terms of their sensitivity to labour market needs.

a. *The Training Programs of Colleges of Applied Arts and Technology*

Program administrators in the Colleges of Applied Arts and Technology (CAATs) seek to keep in touch with labour market needs in their areas through advisory committees which represent employers, unions and others from their communities. Undoubtedly such committees play a useful role in keeping the administrators up-to-date with employers' requirements. These committees have been established at both the provincial and local levels, and they help to provide guidelines and co-ordination for programs in major occupational areas. Their levels of activity and contribution vary greatly depending on their membership and on the value which program administrators place on them. Implementation of the Training in Business and Industry (TIBI), Management Development and other extension programs of the CAATs offers staff contacts with a number of local employers.

This kind of partial and informally developed labour market information, while useful, can lead to distortions in the distribution of trainees in terms of labour market needs unless it is balanced by more objective and systematic sources of information. Significant elements in the labour market may not be represented on advisory committees, and those which are may have vested interests. Employers, because they naturally like to have an adequate or over-supply of qualified workers in those occupations for which they recruit, may create inflated impressions of actual requirements, whereas unions may prefer to maintain situations of under-supply.

Activities to place graduates by CAATs and Canada Manpower Centres (CMCs) provide other sources of feedback on labour market needs and on the relevance of training program curricula to job content. Such information can be used as a corrective, but with some lags that are serious in a dynamic labour market.

The biases at play here can be partly corrected through a combination of systematic surveys of employers' needs and economic analyses and projections of manpower requirements. While there are instances of scattered and partial surveys of employers undertaken by CAATs, there is no evidence that surveys are undertaken on a systematic and continuing basis.

The main factor determining the occupational distribution of the graduates of CAAT training programs is the pattern of selection from the various available training programs by the students themselves. This is appropriate, because it is the students, in terms of their life-long career and earnings patterns, who will suffer the most serious personal consequences resulting from a poor fit of programs with labour market needs. Given the relative absence of adequate and objective counselling services and of objective labour market information, students, when they make their decisions, understandably emphasize immediate labour market prospects rather than longer-term opportunities. For example, CMC counsellors, who focus on meeting the immediate needs of employers, often stress short-term labour market prospects rather than longer-run developments. Current labour market requirements frequently reflect the impact of the

business cycle and other short-term factors, and are a misleading guide to occupational opportunities at the end of a two- or three-year training program.

These serious deficiencies can be corrected only by the provision of objective and long-run labour market information in as much detail as the present development of forecasting techniques will permit.

*b. Purchases of Training Programs by the Department of Manpower and Immigration from the Colleges of Applied Arts and Technology*

Virtually all of the purchases in Ontario of institutional training by the Department of Manpower and Immigration are from the CAATs. These purchases therefore account for a major proportion of those entering each training program in each region of the province. The Adult Occupational Training (AOT) Act explicitly charges the Department of Manpower and Immigration to make training purchases in relation to labour market needs. Purchases are presumably guided by analyses made by regional economists of the Labour Market Information and Analysis Branch of the department, and by information on employment prospects from local CMCs. A constraint, however, is sometimes introduced by the availability of facilities in the CAATs to provide specific occupational courses. Courses in areas of new or expanding occupational demand can sometimes be provided in sufficient volume only after a lag. The ability to shift training resources, in relation to the dynamic needs of the labour market, is one of the factors which affects the capacity of institutional training to meet with sensitivity the needs of the labour market. Forward planning, combined with short-term flexibility and an ability to shift teaching and other resources quickly in order to fulfil needs, is an important but difficult requirement.\* The Task Force will make some recommendations designed with this need in mind later in this chapter.

The Program Development Service of the Department of Manpower and Immigration has made surveys from time to time of the graduates of the federal manpower training programs. The Task Force is under the impression that the results of these follow-up surveys have been neither available to, nor used on, a systematic basis by those responsible for training in the Regional Offices of the

Department of Manpower and Immigration, nor by the provincial training authorities who negotiate purchases from the CAATs. Thus they have played little or no role in improving the appropriateness of training to the needs of the labour market. It is clear that a capability for producing valid and useful labour market information requires a communications system to ensure that the information is available and used in decision-making at all levels.

The Department of Manpower and Immigration has made available to the Task Force some results of its follow-up surveys of trainees in Ontario for the year 1970. More recent statistical data are not available.

**Table 23**

*Percentage of trainees employed and unemployed before and after training in Ontario. Canada Manpower Training Program, 1970.*

Labour force status	On entering training	After training
<i>BTSD* &amp; skill courses</i>		
Employed	19.8	68.2
Unemployed	80.2	31.8
<i>BTSD courses</i>		
Employed	13.5	65.8
Unemployed	86.5	34.2
<i>Skill courses</i>		
Employed	28.4	71.0
Unemployed	71.6	29.0

\* Basic Training for Skill Development.

Source: Program Development Service, Department of Manpower and Immigration (Ottawa, 1972).

Table 23 shows percentages of trainees in various categories who were unemployed both before and after training. If the objective of training is conceived to be that of making the graduates of training programs more competitive in the labour market, then, by the test of moving from a status of unemployment to one of employment, the program may be regarded as relatively successful. It is difficult to come to unambiguous conclusions using this test of success, because we do not know the extent to which a similar sample of unemployed people would have found jobs over the same period without an exposure to training. Over a six-month

\* Chapters 5 and 6 of J. Stefan Dupré, et al., *Federalism and Policy Development: the case of adult occupational training in Ontario* (University of Toronto Press, 1973) outline the many difficulties in the way of the efficient and responsive purchasing of training to meet labour market needs.



period, any representative sample of unemployed will show a large percentage of persons moving from unemployment to employment. Clearly, while training probably assisted a number of them to secure employment, a number of them would have found work in any event, so that it is impossible to isolate in quantitative terms the effects of training on reducing the chances of unemployment for trainees.

A further point of misconception, sometimes put forward by those with a political stake in the success of training programs, has to do with their impact in reducing total unemployment. Training often improves the competitive position for available jobs of those trained at the expense of less qualified candidates. Training, as such, simply substitutes one unemployed worker for another without reducing the total pool of unemployed, unless there are vacant jobs for which employers cannot find suitable workers at going wage rates. It is only when training succeeds in filling a job vacancy, which would otherwise go unfilled, that it makes a contribution to reducing the volume of unemployment.\*

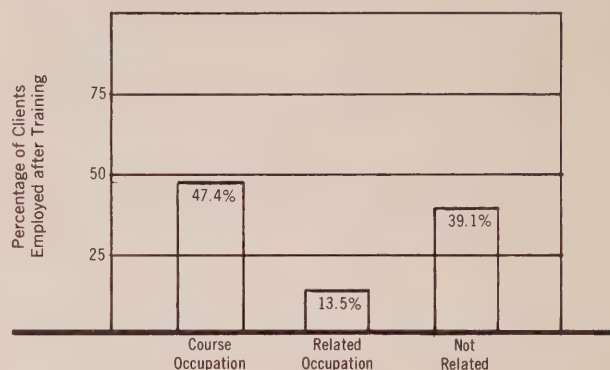
The aim of training courses for occupational skills is presumably to prepare workers to enter positions for which they are trained, and thus to help them get better jobs. This will facilitate the growth of the economy by providing additional labour for occupations which would otherwise go short. The extent to which this objective is met depends ultimately on the adequacy of the decision-making mechanism which determines the quantities of those trained in various occupations in relation to the occupational requirements of the labour market.

Figure 14 portrays the relationship of training in occupational courses under the AOT Act to the subsequent jobs obtained by graduates.

Only 47.4 per cent of the graduates entered the occupations for which they had trained, while 39.1 per cent entered unrelated occupations and the balance of 13.5 per cent entered occupations that bore some relation to their training. Again, it is not possible to interpret these results definitively. One can conclude that there was a poor relationship between the distribution of courses and the numbers

**Figure 14**

*Association between course taken and trainees' post-training occupation, skill courses in Ontario*



Source: Program Development Service, Department of Manpower and Immigration (Ottawa, 1972).

graduating from them, and the needs of the labour market. Therefore, more than 50 per cent of the graduates either had to find jobs in unrelated or distantly related occupations, or continue to be unemployed. However, this is not to conclude that, in those cases where a graduate did not become employed in a related occupation, the training did not provide him with a competitive advantage in the labour market. Employers frequently use success in a training course as a proxy for initiative, intelligence and motivation, and therefore hire graduates of training courses in preference to persons with similar qualifications who have not recently undertaken training.\*

During 1970, when these AOT training programs were being undertaken and evaluated, conditions in the Ontario labour market had deteriorated to such a degree that there were in Ontario surpluses in many occupations and few shortages. Unemployment in Ontario averaged 134,000, the rate being 4.3 per cent.† While job vacancy data are not available for the first and second quarters of 1970, those for the first and second quarters of 1971 reveal that job vacancies in all occupations amounted to 9,200 and 12,100 respectively.‡ Supporting data on occupa-

\* For an evaluation of the impact of federal manpower training in the years 1968-72, see W. R. Dymond, "Canadian Manpower Policy: A Policy in Search of a Problem." In Industrial Relations Research Association, Proceedings of the Twenty-fifth Annual Meeting (1972).

\* See Economic Council of Canada, Design for Decision-making - An Application to Human Resource Policies. Eighth Annual Review (Ottawa: Information Canada, 1971), p. 130.

† Statistics Canada, Information (November 7, 1972), p. 27.

‡ Statistics Canada, Quarterly Report on Job Vacancies, (second quarter, 1972), p. 15.

tional shortages from the Department of Manpower and Immigration suggest that vacancies in 1970 were probably somewhat more numerous, but of the same order of magnitude. It is not possible to relate the number trained in this period to the number of vacancies, as the vacancy figure represents the average number of vacancies on a particular day over the measurement period, while the number graduating from training represents a cumulative figure throughout the year. It is probable that this relatively small number of vacancies in the Ontario labour market of over 3 million jobs was largely the result of frictional labour turnover.

As we have seen from the statistics in Chapter 5, AOT adult training over these years increased the volume of output from 37,363 in 1967-68 to 44,096 in 1969-70 and 45,661 in 1970-71, at a time when employment opportunities (and vacancies) were declining. While there were scattered occupational shortages in the labour market in 1970, the effect of the AOT Program was probably, in the main, to substitute many of those trained under the program for somewhat less qualified workers who would have been capable of filling the majority of occupational vacancies in the market.

It is interesting to note that it was not until 1971-72, with a two-year lag behind deteriorating labour market conditions, that the volume of AOT adult training declined to 36,630. Even in this labour market context it is not clear whether this was a planned response to labour market deterioration or simply the result of relative budget stability in the face of sharply rising training and allowance costs.

The statistical base and the concepts underlying this analysis are too limited to allow us to come to firm conclusions concerning the occupational appropriateness of the AOT Program and the adequacy of the total volume of trainees in relation to labour market needs. On the basis of this partial analysis, however, we have come to the conclusion that the occupational distribution of training could be much better related to the needs of the labour market, and that during 1967-71 the total volume of training was in excess of requirements, although as a result of the program better trained and motivated workers probably took the places of unemployed workers who

could have filled many of the available vacancies.\* While we do not have more recent follow-up data for the period since the first half of 1970, there is a strong probability that the program's performance has not greatly improved.

It is only fair to point out that we have been able to analyse the shortcomings of the AOT Program in Ontario in greater depth than other industrial training programs because of the availability of evaluation statistics from the Department of Manpower and Immigration. Similar or even greater deficiencies might have been encountered with respect to other training programs had a statistical basis for evaluation existed.

### *c. Employer-centred Training Programs*

There is no problem of labour market over-supply in programs in which employers train their own employees. The difficulty is rather that of under-supply, for training employers alone do not in most cases provide sufficient training to meet their own needs, apart altogether from the requirements of other employers. For their own employees, employers make decisions on the numbers to be trained and the occupations in which training is to be offered. They have primary control over the selection of trainees, the relevance of the content of the programs, and the quality of the graduates. It is clear that a reliance on training-in-industry by employers alone would not provide anything like a sufficient number of skilled workers to meet the needs of Ontario's economy. The issue of the adequacy of the training supply from private employers is discussed in detail in Chapter 4. Our discussion refers to situations in which employers train their own employees, both with and without government support. When employers are used to meet the training objectives of governments through training unemployed or competitively handicapped workers, a set of judgments comparable to those we have applied in the previous section on CAATs retraining are appropriate.

A new federal Training-on-the-job Program introduced in the winter of 1971-72 was continued in the winter of 1972-73 and is expected to continue in the future. This kind of program does not provide any

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\* As we indicate later in this chapter, it is sound to increase training during a relatively short period of unemployment. This policy can be economically beneficial only if there is a subsequent upswing of opportunities which will provide employment for those trained before their newly acquired skills dissipate.



automatic assurance that all of those trained will secure employment with the employers who train them, or that there will be a need for their skills on the labour market. Indeed, there is a strong presumption that, in a slack labour market, many of those trained will simply substitute for other workers who are able and available to fill existing job vacancies. There will probably be some marginal increment in employment because employers' costs of production are reduced as a result of the 75 per cent wage subsidization of those "trained."

The data on the 1971-72 program, made available to the Task Force by the Department of Manpower and Immigration, indicate that in Ontario over 50 per cent of the expenditures under the program went to employers of less than 10 employees. This suggests that small employers, who are often marginal in an economic sense, are the principal beneficiaries of the program.

*d. The Development and Dissemination of Labour Market Information for Decision-making*

It is a complex and difficult problem to relate effectively training programs to training needs because of the fluctuating requirements of the labour market and the changing content of many occupations. At present, there are significant technical limitations on the contribution which labour market forecasting and manpower planning can make to informed decision-making for students and administrators, as the Economic Council of Canada has stated:\* "Despite significant advance in the provision of labour market information and analysis, the problems of forecasting detailed estimates of labour demand and supply are extremely complex and unlikely to be easily solved. The safest forecast is that uncertainty, because of lack of information, will continue to be pervasive. Uncertainty can be reduced through improved information but not eliminated. We believe that a continuing effort to acquire more information is worth the cost."

Our review has sought to document the point that the sensitivity of Ontario's training systems to the needs of the labour market is very far from perfect, and that resources devoted to improving this relationship will be well spent. The pay-offs for society, employers, and those undertaking training pro-

grams will be substantial. Information collection, analysis and evaluation systems must be developed to aid all levels of decision-makers in the training system if it is to serve the career development needs of individuals and the labour market requirements of the province. The results of manpower requirements analyses and forecasts must be communicated to those making decisions on the allocation of resources to training programs and on curriculum design, and to those who counsel individuals on the selection of training programs. The need is for information on the changing pattern of labour market requirements and on the changing knowledge and skill content of occupations on both a province-wide and a regional basis. The data collection, analysis and information communication systems must be developed on a continuing basis to ensure that the information reaches all the decision-makers in a form that is relevant to their needs. The Task Force has concluded that, in order to meet these objectives more satisfactorily, the Ministry of Colleges and Universities should establish a Labour Market and Vocational Information Service.

The task of this service would be to provide labour market information and manpower requirements forecasts suited to the needs of all educational and training decision-makers in the province, including students. It would utilize labour market information flowing from the CMCs and the labour market forecasting and analysis activities of the Department of Manpower and Immigration, and relevant data from Statistics Canada supplemented, where necessary, by labour market information derived from surveys of employers and economic analyses undertaken by the Service itself. Additional sources of information would be advisory committees and feedback from the placement activities of the CAATs. The Service should be responsible for the collection, analysis, and evaluation of all these data, and for translating them into occupational outlook information on provincial, regional and local bases to serve all decision-makers throughout the province.

With regard to students, the Service must assume responsibility for ensuring that labour market information comes in a meaningful format for career decision-making. Officials making decisions on the introduction of specific training courses, as well as those negotiating the purchase of training courses by the Department of Manpower and Immigration, require labour market information that is continuing

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\* ECC, Design for Decision-making, p. 133.

and up-to-date. Employers considering the development of training courses need labour market information on which to base their decisions.

While there is general agreement on the desirability of a Labour Market and Vocational Information Service, there are differing opinions on its appropriate placement within the framework of the provincial government.\* It has been argued that a Labour Market Information Service, if it is to be objective, should be a neutral organization, and should not therefore be a part of the Ministry responsible for training and education. The Task Force has reviewed this issue in the context of the criteria which it feels are appropriate for deciding on the best location of the Service. It concludes that first, the organization must be an integral part of the Ministry which is responsible for making decisions on the efficient allocation of training resources, in order to ensure that the information it provides is used effectively in this critical decision-making process. Second, in order to ensure that the generators of labour market information are primarily sensitive to the needs of the users, it should assume the responsibility for collecting, analysing and delivering the information in relevant packages. A sound way of assuring that this is done is to make the function of generating and distributing labour market information an integral part of the organization responsible for educational decision-making. Thirdly, the Service should be strategically located in the structure of the Government of Ontario to enable it to have effective liaison with economic Ministries which can keep it fully informed of provincial development plans and to ensure that it will also be in a position to utilize federal government sources of information. This latter requirement would be met as a result of the continuing dealings of the Ministry with the Department of Manpower and Immigration in federal adult training programs.

These criteria all point to the establishment of the Service within the Ministry of Colleges and Universities. It should also be closely linked to a Voca-

tional Counselling and Guidance Service, which will be the subject of a further recommendation.\* The Task Force, therefore, recommends:

#### RECOMMENDATION 37

***That there be established a Labour Market and Vocational Information Service responsible for the collection, analysis, and distribution of information on the labour market and future manpower requirements, and the preparation of occupational outlook analyses and related information, to serve the needs of all those, including counsellors and students, who are in a position to influence the pattern of post-secondary training and education in the province of Ontario.***

#### 2. Curriculum Analysis and the Relevance of Training

The relevance of the skill and knowledge components of occupational training projects and courses to job requirements is a question related to, but separate from that of the provision of adequate labour market information.

We have observed that there is a general need for curriculum development know-how within industry, and the Task Force has come to the conclusion that the prime responsibility for curriculum development in employer-centred training and co-operative programs rests with employers and unions. This responsibility can best be implemented within industry because of the great diversity of work methods and the dynamic character of technological change. Employers have a first-hand knowledge of job requirements; at best, the staffs of schools and colleges have a second-hand knowledge. This point was forcefully made in our workshops by employers who stated that unless this is recognized, the relevance of much occupational training is endangered.

At the same time, the Task Force recognizes, as do employers, that the methodological and technical elements of curriculum development, as distinct from the detailed knowledge of jobs, is largely absent in industry. This know-how must be introduced to employer-centred training programs if they are to produce high-quality graduates.

Curriculum development skills are required, particularly in small and medium-sized enterprises, when training programs are being developed or modified.

\* In Recommendations 85-88 of its Report, the Commission on Post-secondary Education addresses the question of educational and vocational guidance information and proposes that the function of collecting it be assumed by a new Ontario Human Development Commission. See The Learning Society, Report of the Commission on Post-secondary Education in Ontario (Toronto: Ministry of Government Services, 1972).

\* See Recommendation 47.



The experience of the Industrial Training Branch (ITB), gained through the implementation of STIT, and modular training projects, indicates that employers are often willing to develop and undertake training programs on their own if they are provided with technical assistance of this kind. The Task Force is concerned that the provision of curriculum development services for industry cannot be effectively undertaken by an agency which operates only on a centralized basis. At the same time, as we have indicated in Chapter 11, it is important that the principles and methods of modular training be applied to employer-centred training programs.

A Training Methods Development Service should operate on both a central and a regional basis, given the nature of its functions. The central function would be concerned with the development of analytical techniques, and the preparation of handbooks and monographs on occupational job analysis, on the application of modular principles, and on training project design. The other function would be to provide a field staff to assist in the utilization of these materials in the design and development of in-industry training programs.

The Task Force therefore recommends:

**RECOMMENDATION 38**

***That a Training Methods Development Service be established within the Ministry of Colleges and Universities, together with a field staff to serve industry located within the Employer-centred Training Division of the Colleges of Applied Arts and Technology.***

Initially, at least, the promotion of the principles of modular training as described and recommended in Chapter 11 would be a prime responsibility of this Training Methods Development Service.

With regard to training that is based in CAATs, it is important to ensure that there is an adequate fit between job skills required in occupations and the content of industrial training courses. The development of training programs should ideally begin with a systematic analysis of job skills and their progressive translation into topics, course outlines and related knowledge requirements. The price of a lack of precision and timeliness is the provision of training in skills that are less relevant than is desirable.

There are two factors which contribute to a lack of relevance in the job skills taught in industrial training programs. The first is that curriculum development and teaching are sometimes undertaken by those who are not fully conversant with, and expert in, the employment area in which the skills are used. This may occur because those concerned are too far removed from the needs of industry by reason of the gradual obsolescence of their own first-hand knowledge, and because advisory committees do not succeed in translating an up-to-date awareness of requirements to them. We think that the problem of skill obsolescence is likely to grow unless effective measures are taken to combat it as the seniority of college staffs, who were originally recruited from industry, increases.

There are both provincial and regional Training Advisory Committees for most occupational groups of subjects taught in the CAATs. While they are uneven in their impacts because of differences in their representativeness, the energy of their members and their rapport with college teaching and administrative staffs, they have made an important contribution to the development of industrial training programs that are both current and relevant.

In order to ensure that Training Advisory Committees at both levels play an effective role, the Task Force is concerned that they meet reasonably regularly, and that their membership is representative of the interested parties. They should represent the major occupational and employment areas of the community and should utilize specialized sub-committees for specific curriculum development and other tasks. At various points in this chapter, the Task Force will identify specific tasks which it feels the Training Advisory Committees should be prepared to undertake in the interest of improving the relevance and quality of the institutional training programs in the CAATs. In particular we recommend:

**RECOMMENDATION 39**

***That Training Advisory Committees should review new industrial training programs, and systematically review existing programs, to provide recommendations to CAATs on their quality and their relevance to labour market needs.***

### 3. Training Standards

In briefs submitted, and in workshops organized by the Task Force, problems centring on “training standards” were frequently mentioned. The need for standard curricula, examinations, course materials and instructional methods, and for establishing standard levels of competence for graduates, was discussed.\* It was suggested that one of the most important contributions of any government training agency would be the development and policing of training standards. Some felt that the lack of provincial, and indeed inter-provincial, standards and examinations could lead to reduced quality and a loss of confidence in the diplomas and training certificates issued by CAATs and other institutions.

On the surface, such arguments have some appeal and therefore must be analysed with care. A plea for uniform standards should be analysed in the context of the reality of the industrial and manpower training programs which are offered on the initiative of 22 different community colleges, a variety of AOT training courses purchased from CAATs, a substantial number of private institutional training programs, and a growing number of in-industry training programs developed both with and without governmental financial and technical support.

Several issues are buried in the question of “training standards.” First, the lack of explicit criteria against which to judge the quality of individual training programs; second, a concern for maintaining uniformity of content in training programs which are ostensibly similar; and third, a concern for the effective documentation of graduates in terms of the qualifications provided them by a multiplicity of training programs. Employers, in particular, want documentation for graduates which provides explicit criteria for judging the content and results of industrial training programs.

It has been suggested that a significant role of a governmental training authority is to encourage and facilitate the use of explicit performance standards. We agree that an improvement in the quality of training can result from the development and use of such performance standards, and that this would be greatly facilitated by the provision of technical services on a uniform and centralized basis. We

would sound a distinct note of caution, however, as work in this area should proceed only on the basis of a full understanding of the costs and problems involved. There is a “state of the art” problem, and a need to recognize the rigidities which the introduction of an elaborate system of performance objectives would impose. An over-systematization of this area, as in the case of modular training, suggests costs that are likely to be very high in relation to the benefits.\*

The use of performance objectives, in behavioural or other appropriate forms, should improve the quality of course and program planning and the evaluation of the progress of students. It should also tend to reduce variations among the graduates of specific courses and between courses intended to provide the same ranges of skills and knowledge. The Training Advisory Committees of the CAATs should be used to assist in the development of performance objectives.

The Task Force therefore recommends:

#### RECOMMENDATION 40

***That techniques be developed for the use of performance objectives in curriculum planning as part of the work of the Training Methods Development Service of the Ministry of Colleges and Universities, and that they be implemented by the field staffs of the Employer-centred Training Division of the CAATs and by those responsible for curriculum planning in the institutional industrial training programs of the CAATs.***

In the workshops concern was expressed about the lack of uniformity between the same occupational training programs provided by different CAATs, especially in the apprenticeship trades. It was pointed out that where provincial and inter-provincial programs of occupational accreditation are in effect, uniformity in course content and in admission and examination procedures is a formal requirement of provincial apprenticeship standards. In the absence of uniform content and centrally administered examinations, trainees become unable to move between schools, and it was also argued

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\* See Chapter 11.

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\* These comments do not apply to apprenticeship programs whose standards are determined by detailed regulations administered by the ITB.



that lack of uniformity in these areas has led to significant differences in the ranges and levels of competence resulting from programs of instruction that are presumed to be uniform. In Chapter 9 recommendations on apprenticeship have been made which are designed to achieve greater degrees of uniformity in both classroom and on-the-job training. With respect to other occupational courses presented by the CAATs or other institutions, we do not feel that it would be desirable to set up procedures to enforce uniformity. These institutions enjoy autonomy in the areas of curriculum development and instructional methods. There would seem to be sufficient technical constraint imposed by the logic of the occupational subject matter itself and the pressures for relevance stemming from the labour market, to keep the degree of relevance of the training they offer within acceptable limits. This view is reinforced when one considers the side effects of reduced local initiative, and the decrease in the ability of the individual institutions to meet particular needs if rigid central controls over the uniformity of curriculum content and instructional methods were imposed.

There are, however, occupational areas in which, in the interests of quality, labour mobility or other valid reasons, an industry or occupational group may wish to ensure a reasonably high degree of uniformity in the content and methods of training throughout the province. We therefore recommend:

**RECOMMENDATION 41**

***That where uniformity is desirable, after a systematic review and analysis on an occupational or industrial basis, the Ministry of Colleges and Universities assume responsibility for the establishment and supervision of standards which would constitute guidelines to be followed in publicly supported training programs in the province.***

The issue of uniform standards is less important than that of providing adequate information on the objectives, content and other relevant characteristics of particular training programs. The employers of graduates need more information than is typically provided by certificates of graduation if they are to make recruitment and promotion decisions that are

based on fact. At present little effort is being made by training institutions or by government agencies, which subsidize industrial training programs, to provide documentation which would enable employers to evaluate adequately the nature of the training provided. Course outlines, and information on the meaning of credits, certificates and diplomas are essential elements of informed decisions relating to the graduates of programs. Documentation should be made available in a form which identifies the ranges of skills, knowledges and aptitudes, and the levels of competence to which the training is directed.

The Task Force has received complaints from both trainers and employers about the absence of adequate documentation. Those responsible for industrial training and apprenticeship programs were concerned about the difficulty of interpreting subject-based credits given by secondary schools. Employers were unable to translate the multiplicity of credits, certificates and diplomas offered by CAATs into terms which would help them in hiring and promotion. The increased use of subject-based credits, and more individualized programs of study at both the secondary school and post-secondary community college levels may be appropriate. However, the fact of their use reinforces the requirement for a meaningful and uniform way of documenting, evaluating and disseminating information about training programs and credits. With computer-assisted record-keeping programs, this need can be met more efficiently, and provincial training authorities, together with the schools, should be in a position to develop guidelines for standardizing data collection and recording procedures for educational and training credentials. A recommendation on this matter will be made later as part of a more comprehensive recommendation for the development of a comprehensive information system for industrial training.

#### **4. Improving Access to Training**

Two sets of principal variables determine access to training programs; namely, economic constraints, and those imposed by the educational credentials required for admission to training programs.

##### *a. Economic Constraints*

In employer training programs, access depends on being an employee of the company and on selection

by management for training. Selection is made on the basis of management's judgment of the candidate's potential for more advanced responsibility on the job. In a few cases, selection for training is governed by the terms of collective agreements.

Most of the direct costs of employer training programs for employees are absorbed either by the employer alone, or jointly by the employer and one or both levels of government under programs such as TIBI and STIT. In some cases the employee invests some of his free time, although more usually the employer releases him for training during working hours.

In employer-centred training programs which provide training to meet public objectives, as in the case of the new Training-on-the-job Program of the Department of Manpower and Immigration, trainees are selected and referred by Canada Manpower Centres to employers who must approve them as employees of the company. Presumably CMC counsellors select candidates for training within the guidelines of the particular program involved.\* Allowances or wages paid to trainees in these programs are at levels such that many of those with family responsibilities can undertake training without serious pressures to seek alternative employment in less lucrative occupations.

In summary, access to employer-centred training programs is dependent on either being employed by an enterprise in which management considers that the employee has potential for advancement or on being referred by a CMC to an employer for employment and training in the context of program priorities.

In principle, such employer-centred programs are for members of the labour force who may have other income support alternatives such as unemployment insurance, welfare or accepting lower-skilled employment. Allowances or wages paid to these trainees should be above the levels offered by these options. On the other hand, they should not be so

generous as to make training attractive as a way of life to those who may prefer it to working. Allowances on adult training programs are determined under the AOT Act by the federal government, with the approval of the province, and can be varied from region to region within the province. They should be updated annually in terms of rising wage levels, and this is required by the AOT Act at least for the minimum allowance rates.

The Task Force recommends:

#### RECOMMENDATION 42

***That all training allowance payments be above the rates of unemployment insurance and welfare benefits, and that this principle be adopted by the Department of Manpower and Immigration and the Government of Ontario. In particular, that the Government of Ontario review the allowance structure to determine the desirability of varying allowances on a regional basis within the province to better reflect variations in prevailing wage rates and living costs across Ontario.***

Our analysis of access to training on the institutional side will relate primarily to the training programs of CAATs and to the training of adult members of the labour force under the AOT Act. A significant gap in access to training existed under the AOT Program until May, 1972, when an amendment to the legislation enabled members of the labour force to qualify for training allowances provided they were at least one year out of school. Earlier there had been a gap for young people requiring income support, because they had to be three years out of the school system before they could become eligible for allowances to undertake training programs.

The above discussion of allowances and their adequacy relates also to those paid to AOT Act trainees attending CAATs. All the other training programs offered by CAATs are open to the public at large, with a substantial part of the costs borne by the taxpayer and fees accounting for approximately 12 per cent of the costs. These fees, which are at a relatively modest level, do not seem to constitute a significant impediment to access except for the lowest income levels of the population. It is the absence of income support provisions to enable those who are either employed or need employment and who wish to attend CAATs on a full-time basis,

\* An illuminating discussion of the problems of communicating appropriate guidelines, and the great variability in selection criteria applied by CMC counsellors, is to be found in J. Stefan Dupré et al., *Federalism and Policy Development: the case of adult occupational training in Ontario* (Toronto: University of Toronto Press, 1973).



to meet family obligations which severely limits access for large elements of the adult population to part-time evening and extension programs only. In part, the AOT Act is designed to overcome this handicap for adult members of the labour force, but its focus is on the unemployed and the more marginal and least competitive elements of the labour force. This leaves a substantial gap for those who work full-time and who have financial support commitments. They have no means of improving their vocational qualifications through publicly sponsored training other than through part-time evening programs.

The problem of financing training through the provision of income support for the adult population in general is not mentioned in the Terms of Reference of the Task Force, and is a complex and difficult question of public policy. It was identified in the context of all post-secondary education by the Report of the Commission on Post-secondary Education,\* in which proposals are made respecting the financing of access through collective bargaining provisions, and the provision of financial entitlements by government to members of the adult population who wish to undertake post-secondary educational programs or their equivalents. The question of whether or not to provide support is one of public priorities in the allocation of limited governmental resources, and ultimate policy formulation is this the responsibility of the legislature. Here, we simply make the point that, if it is considered desirable to provide income support for those in post-secondary training institutions with financial responsibilities, then the degree of support should be geared to the secondary benefits flowing to society as a result of the training undertaken. If such secondary or "spill-over" benefits are substantial for the economy as a result of occupational training, then income support should be higher. If the benefits flow primarily to the individual without any particular relevance to the needs of society, then financial support should be proportionately smaller.

#### *b. Educational Constraints*

Educational constraints probably play a more substantial role in reducing access to training than do financial constraints. Restrictions are often imposed

in terms of the educational goals of the program which affect the criteria used for admission to training. Any restraints or limitations imposed, other than those required to ensure that the trainee has a reasonable chance, in terms of his capabilities, of successfully undertaking the program, are unjustified. Other restrictions imposed by administrators or educators deny equality of access to publicly financed training programs and are therefore discriminatory. If resource limitations require the rationing of access to the program then neutral and objective means should be found to determine eligibility. It is, of course, legitimate to take into account such variables as learning abilities, occupational aptitudes, job experience, and necessary educational background in establishing admission prerequisites and standards for training programs. However, the use of factors such as these can be distorted by educators if they are used in order to permit only "good students" to enter particular programs in the interest of turning out "high-quality" graduates. The use of "standards" such as this, while appearing to be objective, tend in fact to be inward-looking, for the educator is seeking the approval of his peers in developing "excellence" rather than looking outwardly to the needs of the trainees themselves and to the public objectives of the program.

Educational "prerequisites" in terms of certificates, diplomas, degrees or secondary school grade levels are often used as proxies to identify the "good students" on the assumption that previous educational qualifications are required for the acquisition of the knowledge and skills of a particular training course.

Educational prerequisites are sometimes "required" for the student as background for the more theoretical and general aspects of the training, although these may not even be essential areas of the training program. Some critics have pointed out that educational institutions tend to operate on the principle of "exclusion" rather than "inclusion," and feel that they should produce only "excellence" for the labour market because their reputations depend on their high quality products.

We do not intend these remarks to be taken to mean that educational prerequisites have no role in determining admission to particular training programs. Obviously they are necessary in many instances, because knowledge is interrelated and frequently proceeds in a step-by-step fashion so that specific components are required as bases for more

\* See The Learning Society.

advanced knowledges and skills. If educational prerequisites (as distinct from qualifications) are used thus, they serve a functional purpose rather than act as barriers to entrance into programs for those who can succeed in them.

The purpose of this analysis is to point up the need for a set of objective techniques which would assist in the development of admission criteria for training programs. Admissions standards must be related to the objectives of the program which, in the case of industrial and manpower training, concern occupational and job requirements in the labour market. It has been said that education is too important to leave to the educators alone. Certainly we are of the opinion that, because of the biases concerning admission practices that are inherent in institutional training establishments, the views of those who are familiar with job and occupational requirements must be brought to bear.

In an earlier recommendation,\* the Task Force has proposed that existing and new industrial training programs be reviewed by Training Advisory Committees to ensure the greater relevance of their curricula to industrial needs. There is also a fundamental requirement that administrators and teachers be responsive to the need for relevance, and that they do not misuse educational prerequisites for the purposes outlined above. To ensure the relevance of admission practices, the Task Force recommends:

#### RECOMMENDATION 43

***That Training Advisory Committees review the admission standards and practices of each industrial training program to ensure that it is relevant and functional in terms of the objectives of the programs, and to ensure that such standards do not unnecessarily restrict entrance. That emphasis be given, within the limitations of techniques, to the greater use of predictive tests, as distinct from educational prerequisites, in the selection of students for industrial training programs.***

\* Recommendation 39.

#### 5. The Full Utilization of Resources and the Flexibility of Training

The twin goals of full utilization and flexibility in the use of training resources are difficult to reconcile. By resources we mean teachers and buildings, plant and equipment. The full utilization of resources would reduce the unit costs per graduate and lower general training costs because overheads would be used more efficiently. However, flexibility frequently requires a resource utilization that is less than complete if rapid responses are to be made to constantly changing requirements.

Flexibility requires the rapid adapting of teachers, courses and training plant to changing occupational requirements. It means that the many elements of the training system must be geared to flexibility and change in terms of numbers in training in particular occupations, as well as in terms of the total volume of training in response to seasonal and longer-run, irregular cycles in the levels of economic activity. Ideally, the requirements of individual trainees and the occupational requirements of the economy must dictate, on something approaching a demand basis, the responses of the training system.

This kind of flexible response implies increased costs and even short-term redundancy in the use of facilities and teachers. On the other hand, the full utilization of capital and manpower resources implies stability, long-term planning, and high occupancy rates for capital facilities. To the extent that facilities are utilized more fully, unit costs are reduced, while capital and teachers are used more efficiently.

There is therefore a trade-off between these two objectives of flexibility and utilization. Policy should seek to optimize the trade-off through developing measures which contribute to full utilization without undue sacrifice of flexibility, and vice versa. The Task Force favours movement in the direction of greater flexibility for the training system to meet the needs of the economy and the career-development requirements of trainees. A point which weighs heavily in favour of this is that while the direct costs of flexibility may be high, the indirect cost of achieving full utilization through a planned stability of training program availability and enrolment is also very high, both for the economy and the individual. Direct costs relate to capital and its depreciation, administrative overheads and the current expenses of employing teachers and support staff. Indirect costs to the



economy relate to consequences of not training to fill vacancies, which leads to lost production; the costs of training for the wrong occupations people who subsequently become unemployed; and the denial to individuals of opportunities for career development, which reduces both their income and the income of the economy in the long run. All these indirect costs are reflected in production losses and resultant higher costs as well as in the increased social costs of supporting the unemployed. Occupational training can and does provide increased flexibility in the use of manpower resources and thus makes a significant contribution to economic growth and stability, as well as to the general viability of the economy. These indirect costs borne by the economy can, in general, greatly outweigh the direct savings which can be achieved as a result of planning for stability in the training system that is designed to utilize its resources fully.

#### a. The Need for Flexibility

Industrial training, to meet the needs of those in the labour force who are either unemployed or in danger of becoming so, must be geared to the changing levels of employment in the labour market. As the market softens and unemployment increases, it is sound to take the opportunity provided by this period to step up training to prepare a corps of skilled manpower to meet the next upswing of employment without the unnecessary inflationary pressures which arise from labour market shortages. To meet this objective, training programs must be geared to the predicted pattern of occupational requirements both in general and, to a lesser extent, by area. A short period of recession provides an opportunity for general educational upgrading through Basic Training for Skill Development Programs which enable individuals to take further training or to increase their competitiveness in a wider range of employment opportunities. Such generalized educational upgrading, as part of a program of expansion of training opportunities in a period of declining employment opportunities, has the further advantage that it does not depend on a detailed knowledge of future occupation requirements.\*

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A full discussion of the use of manpower training as a stabilizing element in recessions is contained in Paul E. Sultan "Retraining Programs as a Remedy for Cyclical Unemployment: A Critical Evaluation." Mimeo. (Ottawa: Review and Assessment Committee, Department of Manpower and Immigration, 1970).

Thus a sound anti-cyclical and counter-inflationary policy favours the stepping-up of training during periods of both cyclical and seasonal down-turn in the economy. This means that institutional and employer-centred training programs should adapt to substantial short-run changes in the total volume of training. A significant economic point involved here is that it is less costly in real terms to train workers who would otherwise be unemployed than to train workers who have alternative employment opportunities in a more buoyant labour market. The real cost of training workers who have alternative employment opportunities is the "alternative opportunity cost" to the worker, and the cost to the economy of the lost production consequent upon his being in training rather than contributing to output. However, if the worker would otherwise be on unemployment insurance or welfare, this cost to the economy is replaced by an investment in training, which in many circumstances will more than repay itself in increased production subsequent to the training.

An important qualification of the flexible policy posture we recommend here is that the down-turn of the business cycle, and the consequent labour market stagnation, should not be of such long duration that large numbers of workers are unable to find suitable employment related to their training after they have completed it. Unfortunately, this has tended to be the case in the last several years because high levels of adult training have been maintained under the AOT Program as levels of activity in a number of institutional training channels have increased.\* The result is that the training investment has been partially wasted because skills and knowledges acquired in training dissipate if they are not put to use. Thus, much of the training which takes place over a lengthy period of labour market stagnation, such as has characterized the last two or three years, is not necessarily an investment which is substantially recaptured as a result of the process of economic growth. The argument for expanding training under such conditions is largely social rather than economic; that is, it is better for the morale of those being trained to be engaged in purposeful activities rather than to remain in idleness on unemployment insurance or welfare.

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\* See pp. 91-95 for a discussion of the responsiveness of training channels to labour market requirements.

The main difficulty confronting the implementation of a policy which adapts the volume of industrial training to the swings of the economy and employment is the consequent variation in the extent to which physical plant and teaching staff are utilized, particularly in public training institutions. There is also a need for considerable variability on a continuing basis for at least a portion of occupational training programs as a result of changing markets and changing technology. Thus the training system must respond to a constantly changing mix of occupational requirements on the labour market. This relates to the relevance of training, which was discussed earlier,\* and it also has implications for the use of facilities and teachers and emphasizes the need for constant adaptation of plant and teaching capacities.

There is also the important question of the changing needs of individuals throughout their work careers. This implies the requirement for and the capacity to develop career-oriented clusters of training programs which provide a succession of meaningful career opportunities for individuals.

How can such flexibility be achieved by our training system in a practical way that meets the objectives we have outlined? We are aware that this is a complex and difficult question which requires a detailed knowledge of the administrative, budgeting and teaching resources of the training institutions of the province. It also requires a knowledge of the ways in which students are identified and admitted to training programs. The Task Force is, accordingly, not in a position to provide a series of detailed practical recommendations for achieving flexibility in the various components of a dynamic and complex training system. It can only offer some suggestions for more detailed study in relation to its feasibility. Clearly, a number of items on which we have made recommendations in this Report will contribute further to the achievement of flexibility if they are adopted. For example, improvements in the development and utilization of labour market information, in both administrative decision-making and student counselling, are the bases on which a more flexible training system can be achieved. Curriculum development work and its sensitivity to job needs through the Training Advisory Councils would be a further step in this direction. Training program evaluation should help to provide an informed basis for phasing out programs which are

meeting objectives ineffectively, and should point the way towards meeting new needs. Giving CAATs the responsibility to allocate their budgets between program areas on a flexible basis, in terms of their assessments of changing needs, should be a long step in the direction of flexibility.

More significant than any of these measures is an increased capacity to use employer-centred rather than institutional training to meet public training objectives. When the economy is operating at lower levels, employers' facilities and staff can be used to expand and initiate training programs. Thus, employers can be used to meet peak training requirements without extending institutional training facilities which would have to be cut back later when the peak is passed.\* When the economy expands, employers will have less capacity to undertake public training tasks. Thus they are in a much better position to absorb the shocks of changing levels of training activity than is the institutional-based training system with its long-term commitments to teaching staff. In addition, physical plant and capacity must be utilized at relatively high levels if unit costs are to be kept within reason. Employer-centred training provides the flexibility and sensitivity to needs which cannot be achieved to nearly the same degree in institutional training systems.

Of significance in the achievement of greater flexibility is the role of budgeting systems. Budgeting procedures in educational institutions typically inhibit flexibility and quick responses to change, both in terms of the numbers of training places and the distribution and availability of specific courses. Budgets are typically fixed for a year and are usually submitted many months in advance of the fiscal year to which they apply. In the absence of sophisticated manpower requirements forecasting techniques, industrial training requirements can only be guessed at over this kind of time frame. The budget is struck, and is frequently frozen with respect to its level and the objects of expenditure. Administrators are told that they must keep within their budgets; that is, they must neither over- nor underspend. The

\* Cf. Chapter 4 pp. 68-70 for a discussion of the problems of using employers' training capacities in this way.

\* See pp. 187-188.



budget therefore is a strait-jacket which frequently constitutes a major inhibition to the implementation of adjustments, for at least twelve months, in the levels and occupational objectives of training programs. Within the framework of public financial responsibility, it is ultimately in the provincial legislatures, and in the case of federally financed programs in the Parliament of Canada, that changes in legislation may have to be sought to permit the development of sufficient budget flexibility to permit adaptive responses through industrial and manpower training programs. The Task Force points to the budgeting area as one requiring active exploration if innovative techniques are to be developed which will permit the kind of flexibility that is needed.\*

For the reasons indicated above, the Task Force recommends:

#### RECOMMENDATION 44

***That an early study be undertaken on the questions of flexibility and the utilization of resources in the industrial training system of the province, as a basis for recommendations on the ways and means by which greater flexibility can be achieved within the context of the efficient utilization of training resources. That the study be guided by a policy committee representative of the CAATs, administrative and research personnel from the Ministry of Colleges and Universities, employers and unions.***

There are several further questions which come under the heading of flexibility and full utilization to which we wish to direct attention.

We have learned through workshops and briefs that resources are frequently under-utilized in many of the CAATs. As we have indicated, some of this under-utilization may result from efforts to achieve flexibility, or from inability to predict demands for training originating from the Department of Manpower and Immigration and the communities served by the CAATs. There is, of course, little point in using teaching and capital facilities if there is no demand for their services. In the workshops, there was some expression of the view that the under-

utilization of institutional facilities was in some cases due to the fact that they had been over-extended, despite the availability of alternative facilities in either the public or the private sector. It was pointed out, for example, that idle capacity existed in the shops and technical training facilities that had been placed in the secondary schools of the province by expenditures under the Technical Vocational Training Act of 1961. Subsequently, there had been significant changes in the philosophy of the secondary school system respecting its role in vocational and industrial training, and also in the development of the CAAT system. The problem of utilizing such capacities is difficult because of the high costs of maintaining them under the existing provincial financial arrangements, and because of their gradual obsolescence resulting from changing technological and labour market requirements.

The Task Force is convinced, however, in terms of both flexibility and reduction of costs, that a good deal could be achieved by the increased utilization of existing technical and business training facilities in the CAATs and the secondary schools of the province. This can be achieved only if a systematic effort is made, on a current basis and in one centre, to keep track of available staff, facilities, and training programs, and if this information is easily accessible to those responsible for program planning. As part of a Training Registration and Information Service, a systematic inventory of currently available training facilities, equipment, staff and programs could serve a number of important needs. It would be used in designing and implementing training programs and in planning new capital facilities, equipment and staff acquisitions in order to ensure more efficient utilization of existing stocks by avoiding unnecessary duplication and over-extension of resources. The Task Force will be making a recommendation on an overall inventory and registration service later.\*

## 6. Program Development and Evaluation

A factual and analytical base is necessary to support decision-making at the many levels of the provincial training system. A program development and evaluation organization's role would be to ensure that decisions on new programs and program changes are based on fact and the results of research, and that they combine all the skills and knowledges which should be harnessed for this purpose. The absence of such a program development support

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\* For a discussion of the planning and budgeting problems surrounding the federal-provincial implementation of AOT Act training, see Design for Decision-making, pp. 119-121.

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\* See Recommendation 48.

capacity often means that past mistakes are repeated or that administrators continually “rediscover America.”

The development and evaluation of training programs involves a variety of professional backgrounds and experience including those of educators, job analysts, program administrators, economists and information system specialists.

A quotation from the ECC is appropriate: “The suggested framework places considerable emphasis on three basic elements: decision-making is essentially a process of choosing among alternatives; in order to make appropriate choices, it is essential to use the widest possible basis of relevant information and to apply the best possible analytical techniques; and the process must be one that avoids the dangers of bureaucratic and technocratic dominance by providing increased ‘openness’ in government decision-making.”\*

*Program Development* involves a team approach which draws on specialists and administrators from both the central and delivery levels of the training system. The “openness” of the system is provided for by the involvement of the Training Advisory Committees.† It requires testing against known experience and assessment of the possibility of achieving program goals in terms of an analysis of alternatives and options, in order to select the best available. In training programs, particularly in the employer-centred training area, it will require close collaboration with federal officials and similar program development capabilities in the Department of Manpower and Immigration. Training programs in which undesirable side effects have not been foreseen waste public resources, to say nothing of the losses involved for both trainees and employers in pursuing activities of questionable value.

*Program Evaluation* – the expenditure of public funds in a responsible way requires a continuing evaluation of the extent to which intended objectives are being met. Programs must frequently be adapted to changing labour market, technological and demographic situations. The role of program

evaluation is to provide a factual and analytical base for such changes. It would provide a guidance system for decision-makers and enable them to offer solutions to many of the problems of sensitivity, flexibility and the efficient use of resources which the Task Force has emphasized in this Report.

Program evaluation involves the development of information bases for programs in order to trace the uses of financial, human and technical resources within them. If data permit, and techniques are adequate, the use of simulation, cost-benefit and cost-effectiveness models could be developed. It should be realized, however, that these are only aids to decision-making and can never replace the judgment of administrators and analysts in reaching conclusions and making decisions.\* Nevertheless, these tools can assist in this process to a significant degree. They can help to provide a sounder basis for decisions on the more efficient use of resources in achieving objectives, and in the consideration of the best means for reaching them.

While information on physical and financial resources is important to program evaluation, the critical element in the evaluation of training programs is the tracking of individuals who have been through the programs. People are the most important element in any training program, and what happens to them determines whether or not the program is ultimately successful in reaching its objectives. Surveys to follow up those leaving or graduating from the training programs, at least on a sample basis, comprise the single most important evaluative technique. They should include information on the demographic and labour force characteristics of those entering programs and the reasons why they drop out, data on achievement in relation to admission standards, and information on the occupations entered by graduates and their subsequent incomes and employment statuses. As we have seen earlier,† evaluations of the impact of training programs ideally require equivalent information on the employment and income histories of a randomly selected comparable sample of the population that has not been exposed to the programs, or at least an appropriate statistical simulation of this information. This follow-up data must then be related to the objectives of the original training programs in order to evaluate their

\* ECC, Design for Decision-making, p. 63.

† See Recommendations 39 and 43.

\* See Dymond, “The Role of Benefit/Cost Analysis,” for a discussion of the uses and limitations of cost-benefit analysis.

† See pp. 181-182.



effectiveness, and as a basis for monitoring and improving the future functioning of the programs or for considering the phasing out of certain of them and their replacement by alternatives.

The almost complete absence of this kind of evaluative information has imposed constraints on the degree to which this Task Force has been able to carry out adequately its mandate to recommend improvements to Ontario's industrial training system.

The industrial training systems of the province are decentralized, therefore at least some of the program evaluation activities should be decentralized to the CAATs. Decentralization of this activity is sound in any event, because it would be unwise to have such a critical function performed purely from a central technocratic base which, in the long run, might itself become insensitive to changing social and economic needs. It is necessary to provide a central base in the Ministry of Colleges and Universities to service the Ministry's role in the evaluation and development of programs and policies. The role of the central staff in relation to specific training programs in community colleges or in employer-centred training projects should be one of co-ordination and technical support. The implementation of program evaluation in the 22 CAATs across the province would be very uneven unless a central unit were to provide co-ordination and technical support in such areas as the maintenance of uniform standards of quality, as well as comparability in evaluation of training projects from college to college and industry to industry. Program development and evaluative capacity should be developed in each CAAT to serve both employer-centred and institutional training programs, to provide guidance to administrators and the boards of the CAATs in making resource allocation decisions, and to help ensure the responsiveness and quality of training.

The Planning and Research Branch of the Ministry of Colleges and Universities already has a responsibility for assisting in the development and evaluation of the programs of the Ministry. The Task Force proposes that such resources be augmented and utilized to the necessary extent in implementing the mandate.

We recommend:

#### **RECOMMENDATION 45**

***That the Planning and Research Branch of the Ministry of Colleges and Universities assume the following responsibilities:***

- a. to undertake long-range resource and program planning, involving the examination of alternative objectives and ways of implementing them;***
- b. to identify the need for new initiatives to meet changing economic and social conditions, and to develop new or modify existing programs to achieve more effectively the Ministry's objectives;***
- c. to develop criteria and methodologies to ensure the evaluation of training and educational programs, on a comparable basis, by the Development and Evaluation Units in the CAATs and to co-ordinate their activities;***
- d. to provide information to enable decision-makers to determine the desirable allocation of resources between programs and alternative levels of programs;***
- e. to evaluate on a continuing basis the effectiveness of programs at the level of the Ministry.***

The Task Force further recommends:

#### **RECOMMENDATION 46**

***That Program Development and Evaluation Units be established within each College of Applied Arts and Technology to be responsible to the President for direction on implementing the CAAT's activities, and responsible to the Planning and Research Branch of the Ministry for ensuring adequate technical standards and the necessary uniformity of methods in those areas of evaluation where comparisons are desirable and the aggregation of results necessary. That the focus of the work of the Planning and Evaluation Units be the evaluation of educational and training programs, the recommendation of initiatives for new programs and the provision of an adequate information and analytical base to the Boards of Governors of CAATs for making decisions on budgeting and the allocation of resources between major program areas of the colleges.***

## 7. Vocational Guidance and Counselling

Informed decision-making by students on what training programs to take is the most important single element in ensuring an adequate relationship between the needs of the labour market and the graduates of institutional training programs. In the area of industrial and manpower training, there is no doubt that students are motivated to take courses to further their aspirations and to secure adequate and challenging employment. They are, therefore, strongly motivated to relate their training choices to labour market considerations.

Thus, vocational guidance and counselling play crucial roles in ensuring that student decisions are in fact related to labour market needs and are not based on ill-informed and hasty short-term judgments. Guidance and counselling are therefore of critical importance in fitting the structure of industrial training to the needs of the labour market in other than adult manpower training sponsored by the Department of Manpower and Immigration in which placements are made by manpower counsellors.

The Task Force has already made a recommendation\* on the development of an adequate and improved labour market information system. Vocational guidance and counselling constitute the system for transmission of labour market information and relating it to the career aspirations, capacities and interests of students.

An underlying theme of our Report is the importance of the responsiveness of industrial training programs to the needs of the labour market, the necessity of maintaining their relevance to the requirements of particular occupations and the need for rapid adjustment in curriculum content. Student desires and enrolments are the principal elements which help to determine the directions of this flexibility, adjustment and relevance. If relevance is lacking, it is the students who will suffer personally the consequences of frustrated career aspirations, unemployment, income losses, and all the attendant undesirable economic and social effects. There is not so much at stake for administrators and teachers if mistakes are made in the design of training programs, if they lack relevance and if graduates suffer periods of unemployment or employment in occupations not related to their capacities and training. The industrial training system of the province

must be designed primarily to serve student needs; in serving them on the basis of informed student decisions it will also automatically fulfil economic and social needs.

The inter-relationships involved must be based on an adequate information system transmitted through student guidance and counselling. Both currently and in the past, student decisions on whether or not to undertake training, and on what training programs to enter, have been too often dictated by short-run changes in occupational employment trends. An information system not geared to predictions of future manpower requirements inevitably leads students (and administrators) to make judgments that are based on current developments, rather than on the longer time span that relates to the duration of the training and educational programs and to long-term career prospects. It is now apparent, for example, that university enrolments are dropping, largely in response to current labour market conditions, rather than adapting to prospective conditions in four years' time, or longer for those planning to do graduate work. Experience with engineering enrolments has indicated their sensitivity to current industrial employment opportunities. This has led to unfortunate cycles of surpluses and shortages in the output of professional engineers as well as some other groups. There has been insufficient experience with the community college system to make comparable judgments on the relevance of their outputs to labour market requirements, but our earlier analysis has indicated the probable development of similar problems.

The Task Force is aware that vocational guidance and counselling activities are conducted in secondary and post-secondary institutions, and that these require much stronger labour market information bases. We have also become aware, through our workshops and briefs submitted to us, of numerous difficulties with vocational guidance and counselling processes in secondary schools and in community colleges. We have become convinced that vocational counselling and guidance must be based on authentic, objective and independent information interpreted for students in terms of their career aspirations and capacities. If these criteria for guidance are not met, then student choices make an

\* See Recommendation 37.



unreliable base for ensuring an adequate fit between industrial training programs and the needs of the economy and society.

Too often, vocational guidance and counselling are treated as marginal functions in training and educational institutions, and in some cases these functions are carried out by inadequately trained counsellors working with insufficient information. This is not to denigrate the important contributions and the conscientiousness of counsellors, who must work with inadequate information and under some pressure from teachers and administrators. The Task Force is of the view that one of the major difficulties with vocational guidance and counselling in the province arises because their implementation is the responsibility of educational institutions rather than an independent function. It would be too strong to say that vocational guidance counsellors, no matter how well intentioned and trained, find themselves in positions of conflict between the best interests of the students they counsel and the interests of the institutions by whom they are employed. Nevertheless, there are evident conflict of interest elements, for biases inevitably creep into counselling activities. There is a tendency to support recruitment for existing programs and institutions rather than to provide truly objective and independent assessments of the options open to those seeking advice and the probable consequences of following these options.

The Task Force has therefore identified two problems which it feels must be solved if the implementation of the vocational guidance function in the secondary and post-secondary educational and training systems of the province is to be effective. First, the independence and objectivity of the counselling advice offered to students or potential students must be assured. Second, the requirement for increased sophistication and sensitivity in guidance work must be met through the development of a corps of well-trained professionals whose duties are not regarded as only marginally applicable to the major functions of the institutions in which they serve.

To solve these problems, the Task Force recommends that the responsibility for vocational counselling and guidance, as distinct from academic and

personal student counselling, be transferred from the educational institutions of the province. While a concern with secondary and university education is not within the Terms of Reference of the Task Force, we would extend this recommendation not only to CAATs but also to secondary schools and universities. It would not make much sense to develop a corps of counsellors independent of one sector of the educational system without extending the same service and set of principles to the remainder. We are aware that there will be many objections to this recommendation. No doubt a major one will be that there is a significant interrelationship among academic, personal and vocational counselling. However, we are of the view that academic counselling is a continuing process that should come into play once a student has opted for a particular program of studies. Vocational counselling is carried out at the point where a student or potential student is seeking to choose a program of studies. It will certainly involve some discussion of the curriculum content and the nature of the program options which the student is considering, and in this sense it must touch on the academic content of educational and training programs. Vocational counselling, for the reasons we have indicated above, is such an important part of the process of ensuring the most effective fit between industrial and manpower training programs and the needs of the economy and society that we believe it must be independent. Counsellors should, of course, still be placed in the schools and in other locations where vocational counselling is needed, for to be effective it must be readily accessible to those who wish to avail themselves of its services. Counsellors in schools could therefore continue to work in close association with their counterparts whose functions are academic or personal in nature, and could thus ensure that there is an adequate degree of integration in the total counselling process.

To meet the objectives for vocational counselling outlined above, we recommend:

#### **RECOMMENDATION 47**

***That a Vocational Counselling Service be established as part of the Ministry of Colleges and Universities, the counsellors to be on the payroll of the Ministry and to be transferred from the payrolls of the institutions now employing them. That the Service responsible for the implementation of the counselling function be responsible for standards and the selection of counsellors, and for arranging adequate training and educa-***

**tional programs to upgrade the qualifications of counsellors. That the Service be responsible for co-ordinating the distribution of counselling and labour market information, and for ensuring that such information is authentic and objective. That the Service work closely with the Labour Market Information Service proposed in Recommendation No. 37.**

While the resources to provide an effective counselling service are inadequate, in the main this recommendation could be implemented initially by the transfer of responsibilities and financial resources from the schools to the Ministry of Colleges and Universities.

It could be argued, perhaps, that if an independent counselling service were to be established by the province, then the responsibility for the provision of this service should be that of the Ministry of Education because most of the counsellors, and a large part of the counselling activity, are found within the secondary school system. However, we are deliberately suggesting that the Service be placed within the Ministry of Colleges and Universities because of the need for a close association with the Labour Market Information Service which we have proposed for that Ministry, and because it is the post-secondary educational system which principally requires a closer degree of association with the needs of the labour market. It should be feasible to set up a Service under the auspices of one Ministry which would function within an institutional framework for which another Ministry is responsible. Appropriate means of liaison and communication would of course have to be developed between the two Ministries to implement this scheme. The only other alternative would be to make the Service independent of each Ministry, but we feel that this would have undesirable consequences in terms of co-ordination and responsiveness to the needs and objectives of the Ministries concerned, and that it would weaken the link between counselling and the Labour Market Information Service.

## **8. A Training Registry and Information Service**

Several times in this chapter we have pointed out the desirability of providing employers, workers, trainees, trainers, teachers and administrators with up-to-date records of the training capacities of the province and the records of individual trainees. For this reason we recommend:

### **RECOMMENDATION 48**

***That the Ministry of Colleges and Universities establish a Training Registry and Information Service incorporating four components:***

- (a) a teaching staff, plant and equipment record;***
- (b) a cumulative course and program record;***
- (c) a cumulative trainee achievement record;***
- (d) training modules record.***

#### ***a. The Teaching Staff, Plant and Equipment Record***

In the earlier section on the utilization of resources and the flexibility of training we indicated the importance of an up-to-date record of staff and facilities. We therefore believe that one essential function of the proposed Training Registry and Information Service would be the provision of an appropriately organized inventory of currently available training facilities, equipment and staff. The inventory would make available to those responsible for planning and implementing apprenticeship, industrial and manpower training programs the necessary information on available training resources, and would enable them to offer the existing capacities on a short-order basis without the unnecessary creation of new ones. Such an inventory would include current information on the availability of the training facilities of secondary schools, colleges and employers, and on private training firms and consultants.

#### ***b. The Cumulative Course and Program Record***

We have also shown, in our analysis of the training standards problem, that there is a need for a cumulative record of the training courses and programs offered by the various institutions involved in apprenticeship, industrial and manpower training in Ontario. This information is required by training admissions officers and by those responsible for hiring and promotion in industry, to help them assess the formal training experience of individual candidates.

This component of the proposed Training Registry and Information Service would consist of a cumulative record of relevant information. Such a record would include information on courses and programs offered by private and public agencies in Ontario, easily accessible to all those interested.



c. *The Cumulative Trainee Achievement Record*

Another need that we have identified as a result of our analysis of the training standards problem is for information on the achievement of trainees in specific courses or programs.

It was pointed out to us that a mere listing of trainees' credits and certificates seldom provides sufficient meaningful information for training admissions and employer staffing personnel – especially in the face of increased use of subject or course-based credits, and of individualized study programs.

For these reasons we recommend that a third component of the Training Registry and Information Service consist of a cumulative record of the achievements of trainees in both institutional and employer-centred, publicly financed training programs. Such a record would note the continuous progress of the individuals undergoing adult training.

Precedent for such a system of recording the progress of trainees now exists in the form of the Ontario School Record (OSR) system, used to keep track of the progress of pupils in the elementary and secondary schools of the province.\* We suggest an Ontario Adult Training Record (OATR) system as a logical extension of the OSR system into the field of adult apprenticeship, industrial and manpower training.

Precedent also exists in the form of the "progress record book" currently employed in certain of the apprenticeship trades for reporting the cumulative work experience of apprentices, and we suggest the extension of this technique to all trades.

We view a cumulative record as reporting only achievement in training processes directly related to occupational skill development. It would contain only the results of assessments and tests of performance, in both the formal classroom and work

experience components of specific training programs. It would not include the results of psychological reports or teachers' anecdotal remarks not directly related to the learning of occupational skills. We see the record only as a continuously updated file of the individual reports, already received by the trainee, on the results of the courses and programs he has taken. It should therefore be easily accessible at any time to any individual whose progress is recorded in it.

We recognize that there are several difficulties to be resolved in the development of such a system. First, there is the problem of security, for such information could be used illegitimately. Second, there is the problem of monitoring and reporting achievement. Judging from information made available to us, this latter problem has proved to be a difficult one in apprenticeship programs. In addition, in all programs involving training-in-industry, a large part of the monitoring and reporting task falls at present to employers. Finally, there is the problem of organizing the information in an appropriate way and making it available on a demand basis to those entitled to it.

In spite of these problems, there are good reasons why such a system should be developed if it can be shown to meet the needs we have described at reasonable cost. Among the reasons reported to us which support the need for an Adult Trainee Record system are:

- (1) the increasing proliferation of courses and programs due to specialization;
- (2) the increased use of subject credits and individualized programs of study;
- (3) the emphasis on career development and the need to facilitate the upgrading and retraining of employees;
- (4) the need to supplement the use of credits and certificates for making training and staffing decisions by the use of more detailed information on the skills and knowledges acquired by the candidates;
- (5) the need for devising an effective yet simple means for reporting on the work experience aspect of apprenticeship, industrial and manpower training programs.

\* See Ontario Ministry of Education, *Manual for the Ontario School Record System* (1972 edition).

*d. The Training Modules Record*

In Chapter 11 we reviewed the many benefits and problems associated with modular training as pioneered by the ITB. We have recommended that the implementation of modular training be decentralized among many agencies, and this would create the need for a systematic and current inventory of the modules developed, if the advantages of using “off-the-shelf” modules and tailor-made training programs in particular are to be optimized. Therefore, in this chapter, we recommended the provision of a registration and information service to inventory and make available information on the various training modules offered within the province. This service could be part of the Ministry’s Training Registry and Information Service. In the meantime, the ITB or its successor should continue to have the function of inventorying and disseminating training modules developed by both itself and other agencies.



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